

Montana Natural Heritage Program  
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# Plant Species of Special Concern

June, 1997

## Introduction

The Montana Natural Heritage Program (MTNHP) maintains an inventory of the elements of biological diversity in Montana, including plant species, animal species, and plant communities that are known or suspected to be rare, endemic, disjunct, threatened, or endangered throughout their range or in Montana, or in need of further research.

The list of 346 vascular plant species of special concern and the list of 111 moss taxa and one lichen of special concern in Montana summarizes current status and county distribution. The lists have been developed from numerous sources, including published and unpublished scientific literature, herbarium specimens, the Rare Plant Project (Lesica *et al.* 1984), knowledgeable persons, a variety of cooperating agencies and organizations, and MTNHP field research.

These lists are periodically revised as new data becomes available. Changes since the most recent edition (Heidel 1996) are underlined for quick reference. New additions to the state flora--discoveries, annotations, taxonomic revisions, and obscure references--are in **bold and underlined**. Printed revisions are produced annually, while periodic updates will be available from our office or via our home page at <http://nris.mt.gov/mtnhp>.

The publication *Sensitive, threatened and endangered vascular plants of Montana* (Lesica and Shelly 1991) provides supplemental details on habitat, phenology, distribution on public lands, and other species information. Work is underway to expand and update this publication, including the addition of illustrations and maps, and posting this information on our home page.

Comments and suggestions on list contents are invited, particularly regarding recommended additions or deletions. New location information for any of these taxa is also being solicited. MTNHP can supply current location information and status data for most of these taxa.

Information requests can be placed by calling or writing MTNHP at the above address, via e-mail at [mtnhp@nrис.mt.gov](mailto:mtnhp@nrис.mt.gov), or through the World Wide Web at <http://nrис.mt.gov/mtnhp> (follow the link for Information Requests).

## Heritage Program Ranks

Taxa are evaluated and ranked by the Heritage Program on the basis of their global (range-wide) status, and their state-wide status according to a standardized procedure used by all Natural Heritage Programs (The Nature Conservancy 1992). These ranks are used to determine protection and data collection priorities, and are revised as new information becomes available.

For each level of distribution—global and state—species are assigned a numeric rank ranging from 1 (critically imperiled) to 5 (demonstrably secure). This reflects the species' relative endangerment and is based primarily on the number of occurrences of that species globally or within the state. However, other information such as date of collection, degree of habitat threat, geographic distribution patterns and population size and trends is considered when assigning a rank, and the number of occurrences listed below are suggestions, not absolute criteria.

For example, Clustered lady's-slipper (*Cypripedium fasciculatum*) is ranked G4 S2. That is, globally the species is apparently secure, while in Montana it is imperiled because of rarity, or because of other factors making it demonstrably vulnerable to extirpation.

### Rank      Definition

- |   |   |
|---|---|
| 1 | Critically imperiled because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extinction. |
|---|---|

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## Heritage Program Ranks (continued)

### Rank      Definition

- 2 Imperiled because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range.
- 3 Vulnerable because of rarity (21 to 100 occurrences) or found in a restricted range (even abundantly at some of its locations) in a restricted range.
- 4 Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.
- 5 Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery.
- U Possibly in peril, but status uncertain; more information needed.
- H Historical, known only from records over 50 year ago; may be rediscovered.
- X Believed to be extinct; historical records only.

### Other Heritage Codes

G#G#      Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.

### Subrank

T      Rank for subspecific taxon (subspecies or variety); appended to the global rank for the full species, e.g. G4T3.

### Qualifiers

- Q      Taxonomic questions or problems involved, more information needed; appended to the global rank, e.g. G3Q.
- ?      Inexact or uncertain: for numeric ranks, denotes inexactness.

## Fish and Wildlife Service Status

The symbols in this column denote the categories defined in the U.S. Fish and Wildlife Service Notice of Review (1980, 1983, 1985, 1990, 1993, 1996) and indicate the status of a taxon under the federal Endangered Species Act of 1973 (16 U.S.C.A. § 1531-1543 (Supp. 1996)).

- LE      listed endangered (**none in Montana**)
- LT      listed threatened (**two in Montana**)
- P      proposed endangered or threatened (**none in Montana**)

- C      candidate--substantial information exists in U.S. Fish and Wildlife Service files on biological vulnerability to support proposals to list as endangered or threatened (**none in Montana**)

**Note:** *Species previously recognized as C2, 3B and 3C are no longer tracked by the USFWS (61 FR 7596, Feb. 28, 1996).*

## Forest Service Status

The status of species on Forest Service lands as defined by the U.S. Forest Service Manual (2670.22). These taxa are listed as such by the Regional Forester (Northern Region) on National Forests in Montana.

- E      listed as Endangered (LE) by USFWS
- T      listed as Threatened (LT) by USFWS
- S      sensitive species, subspecies or variety, for which the Regional Forester has determined there is a concern for population viability within the state, as evidenced by a significant current or predicted downward trend in populations or habitat.
- PS     taxon was recommended for consideration as sensitive at the 1995 or 1997 Montana Rare Plant Conference.
- W      watch species--species that are recognized by Forest Supervisors which are either not known to occur on national forest land but predicted to occur there on the basis of suitable habitat, or known to occur on national forest land but with no immediate or predicted threats to population viability.

## Bureau of Land Management Status

The status of species on Bureau of Land Management Lands as defined by the BLM 6840 Manual; designated by the Montana State Office of the BLM in 1996.

- S      sensitive species--proven to be imperiled in at least part of its range and documented to occur on BLM lands.
- W      watch species--either known to be imperiled and suspected to occur on BLM lands; suspected to be imperiled and documented on BLM lands; or needing further study for other reasons.

## County Distribution

Counties in which a species occurs are indicated by the first four letters of the county name, except Yellowstone National Park which is designated by YNPK. Distribution information reflects records in the Heritage Program's database at the time of the list update. These can include county records that are historic, extirpated, or unmappable.

## Range Notes

Taxa which are globally restricted to an area less than half the size of Montana are noted in this column as either state or regional endemics.

SE state endemic

RE regional endemic, endemic species with range that extends beyond the state boundaries

## Changes from the May, 1996 List

Additions and deletions to the state list are the result of changes in either our knowledge of the species or new information on distribution and/or population size.

### Additions

#### Vascular Plants

*Botrychium campestre*  
*Botrychium pedunculosum*  
*Carex chalciolepis*  
*Carex nelsonii*  
*Carex norvegica* ssp *inserrulata*  
*Carex vaginata*  
*Eriogonum visheri*  
*Lycopodium sitchense*

#### Bryophytes

*Didymodon rigidulus* var. *gracilis*  
*Entosthodon rubiginosus*  
*Herzogiella striatella*  
*Hypnum callichroum*  
*Leucolepis acanthoneuron*  
*Phascum cuspidatum*  
*Physomitrium pyriforme*  
*Pseudocrossidium obtusulum*  
*Pterygoneurum lamellatum*  
*Pterygoneurum subsessile*  
*Racomitrium brevipes*  
*Racomitrium pygmaeum*  
*Sphagnum wulfianum*  
*Tortula bartramii*

### Deletions

#### Vascular Plants

*Aster simplex* var. *ramosissimus*  
*Bidens vulgata* var. *schizantha*  
*Carex eburnea*  
*Chrysopsis depressa* (*Heterotheca depressa*)  
*Cuscuta pentagona*  
*Eleocharis xyridiformis*  
*Erigeron bellidiastrum*  
*Erigeron flabellifolius*  
*Erigeron flagellaris*  
*Eriogonum lagopus*  
*Eriophorum viridicarinatum*  
*Evax prolifera*

*Gilia inconspicua*  
*Helenium hoopesii*  
*Ligusticum porteri*  
*Lilium columbianum*  
*Machaeranthera commixta*  
*Madia minima*  
*Mimulus glabratus* var. *fremontii*  
*Oryzopsis contracta*  
*Papaver pygmaeum*  
*Pedicularis contorta* var. *rubicunda*  
*Polygonum polygaloides*  
*Scirpus pendulus*  
*Spiraea x pyramidata*  
*Trisetum x orthochaetum*

## Selected References

Dorn, R. D. 1984. Vascular Plants of Montana. Mountain West Publishing, Cheyenne, WY. 276 pp.

Heidel, B. L. 1996. Montana plant species of special concern. [Unpublished list.] Montana Natural Heritage Program, Helena. 31 pp.

Lesica, P., G. Moore, K. M. Peterson, and J. H. Rumeely. 1984. Vascular plants of limited distribution in Montana. Montana Academy of Science Monograph No. 2.

Lesica, P. and J. S. Shelly. 1991. Sensitive, threatened and endangered vascular plants of Montana. Montana Natural Heritage Program, Montana State Library, Helena, Montana

The Nature Conservancy, Conservation Science Division, in association with the Network of Natural Heritage Programs and Conservation Data Centers. October 1992. Biological and Conservation Data System (Supplement 2+, released March, 1994). Arlington, Virginia.

U.S. Fish and Wildlife Service. 1996. Notice of Review of Plant and Animal Taxa for Listing as Endangered and Threatened Species . 61 FR 7596, February 28, 1996.

U.S. Fish and Wildlife Service. 1993. Endangered and threatened wildlife and plants. 50 CFR 17.11 & 17.12, August 23, 1993. U. S. Govt. Printing Office: 1993-342-477/94033. 40 pp.

## More Information

Extensive additional information, including location data, is available on most species listed here. MTNHP serves as a clearinghouse for information on species of special concern in the state, and each year responds to hundreds of data requests.

*The preferred citation for this document is:*

Heidel, B. 1997. Montana plant species of special concern. [Unpublished list.] Montana Natural Heritage Program, Helena. 34 pp.



## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Adoxa moschatellina</i> Musk-root	Araliaceae	G5	S1	S	W	W	Gran, Jeff, Stil	
<i>Agastache cusickii</i> Cusick's Horse-mint	Lamiaceae	G3G4	S1	PS	S	Beav		
<i>Agoseris lackschewitzii</i> Pink Agoseris	Asteraceae	G4	S3	S			Beav, Carb, Casc, Deer, Gran, Judi, Madi, Meag, Park, Silv, Swee	RE
<i>Agrostis borealis</i> Northern Bentgrass	Poaceae	G5	S2				Miss, Rava	
<i>Allium acuminatum</i> Taper tip Onion	Liliaceae	G5	S1	S			Madi, Rava, Sand	
<i>Allium columbianum</i> Columbia Onion	Liliaceae	G3	S1				Sand	
<i>Allium fibrillum</i> Fringed Onion	Liliaceae	G4	S2	S			Flat, Glac, Linc, Miss, Pond	RE
<i>Allium parvum</i> Dwarf Onion	Liliaceae	G5	S2				Rava	
<i>Allium simillimum</i> Dwarf Onion	Liliaceae	G4	S1				Gall, Rava	RE
<i>Allotropa virgata</i> Candystick	Monotropaceae	G4	S3	S			Beav, Deer, Gran, Rava	
<i>Amerorchis rotundifolia</i> Round-leaved Orchis	Orchidaceae	G5	S2S3	S	W		Flat, Glac, Lewi, Linc, Pond, Powe, Teto	
<i>Ammannia coccinea</i> Scarlet Ammannia	Lythraceae	G5	S1				Garf, Phil	
<i>Amorpha canescens</i> Lead Plant	Fabaceae	G5	SH				Cart, Rose	
<i>Antennaria densifolia</i> Dense-leaved Antennaria	Asteraceae	G3	S1	S			Deer, Gran	
<i>Aquilegia brevistyla</i> Short-styled Columbine	Ranunculaceae	G5	S2	S			Judi, Swee	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Aquilegia formosa</i> Sitka Columbine	Ranunculaceae	G5	S1				Beav	
<i>Arabis demissa</i> var <i>langnuida</i> Daggett Rock Cress	Brassicaceae	G5T3	S1			W	Carb	
<i>Arabis secunda</i>	Brassicaceae	G2	S2		S	S	Beav, Rava, Silv	SE
<i>Arabis lyra</i> var <i>kamchatica</i> Lyre-leaf Rockcress	Brassicaceae	G5T5?	S1			Flat		
<i>Arctostaphylos patula</i> Green-leaf Manzanita	Ericaceae	G4	S1			Lake, Sand		
<i>Artemisia norvegica</i> var <i>saxatilis</i> Boreal Wormwood	Asteraceae	G5T?	SH					
<i>Asclepias incarnata</i> Swamp Milkweed	Asclepiadaceae	G5	S1				Carb, Fall	
<i>Asclepias ovalifolia</i> Ovalleaf Milkweed	Asclepiadaceae	G5?	S1			W	Cart	
<i>Asclepias stenophylla</i> Narrowleaf Milkweed	Asclepiadaceae	G4G5	S1			W	Cart, Rose	
<i>Asplenium trichomanes</i> Maidenhair Spleenwort	Aspleniaceae	G5	SX		S	W	Flat	
<i>Aster frondosus</i> Alkali Aster	Asteraceae	G4	S1			Sand		
<i>Aster glaucodes</i> Gray Aster	Asteraceae	G3G4	S1				Carb	
<i>Astragalus aretioides</i> Sweetwater Milkvetch	Fabaceae	G4	S2			W	BigH, Carb	RE
<i>Astragalus barrii</i> Barr's Milkvetch	Fabaceae	G3	S3		S	W	BigH, Cart, Powd, Rose	RE
<i>Astragalus ceramicus</i> var <i>apus</i> Painted Milkvetch	Fabaceae	G4T3	S1		S	Beav		

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Astragalus convallarius</i> Lesser Rushy Milkvetch	Fabaceae	G5T5	S2			W	Beav, Broa, Lewi	
<i>Astragalus geyeri</i> Geyer's Milkvetch	Fabaceae	G3G4T3T4	S2				Carb, Cust, Daws, Garf	
<i>Astragalus grayi</i> Gray's Milkvetch	Fabaceae	G4?	S1			Carb		RE
<i>Astragalus molybdenus</i> Leadville Milkvetch	Fabaceae	G3	S2	S		Teto		RE
<i>Astragalus oreganus</i> Wind River Milkvetch	Fabaceae	G4?	S1		W	Carb		RE
<i>Astragalus racemosus</i> Raceme Milkvetch	Fabaceae	G5T4	S1		W	Cart, Fall		
<i>Astragalus scaphoides</i> Bitterroot Milkvetch	Fabaceae	G3	S2	PS	S	Beav		RE
<i>Astragalus terminalis</i> Railhead Milkvetch	Fabaceae	G3G4	S2		S	Beav, Madi		RE
<i>Athyranus pusillus</i> Sandweed	Brassicaceae	G4	S1	S		Rava		
<i>Atriplex truncata</i> Wedge-leaved Saltbush	Chenopodiaceae	G5	S1			W	Beav, Lake, Lewi	
<i>Bacopa rotundifolia</i> Roundleaf Water-hyssop	Scrophulariaceae	G5	S1				Casc, Ferg, Garf, Phil	
<i>Balsamorhiza macrophylla</i> Large-leaved Balsamroot	Asteraceae	G3G5	S1		S	W	Beav, Gall, Madi	
<i>Bidens beckii</i> Beck Water-marigold	Asteraceae	G4G5TU	S2				Flat, Lake, Miss	
<i>Bidens comosa</i> Threelobed Beggarticks	Asteraceae	G5	S1			W	Chou, Hill, Rich	
<i>Boisduvalia densiflora</i> Dense Spike-primrose	Onagraceae	G5	SH				Sand	

## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Botrychium ascendens</i> Upward-lobed Moonwort	Ophioglossaceae	G3?	S1	S	S		Flat, Lewi, Linc	
<i>Botrychium campestre</i> <u>Prairie Dunewort</u>	Ophioglossaceae	<u>G3</u>	<u>S1</u>					
<i>Botrychium crenulatum</i> Wavy Moonwort	Ophioglossaceae	G3	S2	S	S		Flat, Lake, Linc, Sand	
<i>Botrychium hesperium</i> Western Moonwort	Ophioglossaceae	G3	S1	S	S		Deer, Flat, Glac	
<i>Botrychium lineare</i> Linearleaf Moonwort	Ophioglossaceae	G1	S1				Lake	
<i>Botrychium minganense</i> Mingan Island Moonwort	Ophioglossaceae	G4	<u>S3</u>	S	S		Casc, Flat, Glac, Gran, Lake, Linc, Miss, Pond, Sand, Teto	
<i>Botrychium montanum</i> Mountain Moonwort	Ophioglossaceae	G3	S2	S	S		Flat, Lake, Linc, Sand	
<i>Botrychium paradoxum</i> Peculiar Moonwort	Ophioglossaceae	G2	S1	S	S		Deer, Flat, Glac, Gran, Linc, Pond, Teto	
<i>Botrychium pedunculosum</i> <u>Stalked Moonwort</u>	Ophioglossaceae	<u>G3?</u>	<u>S1</u>				Linc	
<i>Botrychium spathulatum</i> Spoon-leaf Moonwort	Ophioglossaceae	G3G4	S1	PS			Lake	
<i>Brasenia schreberi</i> Watershield	Cabombaceae	G5	S2				Flat, Lake, Linc, Miss	
<i>Braya humilis</i> Low Braya	Brassicaceae	G4	S1				Beav	
<i>Calamagrostis tweedyi</i> Cascade Reedgrass	Poaceae	G3	S2				Mine, Miss, Rava, Sand	RE
<i>Calochortus bruneanus</i> Bruneau Mariposa Lily	Liliaceae	G5	<u>SH</u>				Beav	
<i>Camissonia andina</i> Obscure Evening-primrose	Onagraceae	G4	S1	S	S		Carb, Miss, Rava	

## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Camissonia parvula</i> Small Camissonia	Onagraceae	G4	S1			S	Carb	
<i>Cardamine oligosperma</i> var <i>karitschatica</i> Few-seeded Bittercress	Brassicaceae	G5T?	S1				Flat	
<i>Carex amplifolia</i> Big-leaf Sedge	Cyperaceae	G4	S1				Sand	
<i>Carex chalciolepis</i> Copper-scale Sedge	Cyperaceae	<u>G5T?</u>	<u>S1</u>					
<i>Carex chordorrhiza</i> Creeping Sedge	Cyperaceae	G5	<u>S2</u>		S		Flat, Linc, Powe	
<i>Carex comosa</i> Bristly Sedge	Cyperaceae	G5	S1				Flat	
<i>Carex cratensis</i> Craw's Sedge	Cyperaceae	G5	S2			S	Casc, Pond, Powe, PRAI, Teto	
<i>Carex gravida</i> Pregnant Sedge	Cyperaceae	G5T?	S1			W	BigH, Powd, Rose	
<i>Carex incurviformis</i> var <i>incurviformis</i> Maritime Sedge	Cyperaceae	G4G5T?	S1				Deer, Glac, Teto	
<i>Carex lenticularis</i> var <i>dolia</i> Goose-grass Sedge	Cyperaceae	G5T2Q	S1		W		Flat, Glac	RE
<i>Carex livida</i> Pale Sedge	Cyperaceae	G5	<u>S3</u>		S		Flat, Glac, Lake, Lewi, Miss, Powe, Teto	
<i>Carex multicostata</i> Many-ribbed Sedge	Cyperaceae	G5	S1			W	Beav, Gall, Park	
<i>Carex nelsonii</i> Nelson's Sedge	Cyperaceae	<u>G3</u>	<u>S1</u>					
<i>Carex neurophora</i> Alpine-nerved Sedge	Cyperaceae	G4	S2				Deer, Gran, Madi, Miss, Park, Rava	
<i>Carex norvegica</i> ssp <i>inserrulata</i> Toothed Scandinavian Sedge	Cyperaceae	<u>G5T?Q</u>	<u>S1</u>					

## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Carex norvegica</i> ssp <i>stevensii</i> Stevens's Scandinavian Sedge	Cyperaceae	G5T?	S1					
<i>Carex occidentalis</i> Western Sedge	Cyperaceae	G4	SH			W	Beav	
<i>Carex parryana</i> ssp <i>idahoaa</i> Idaho Sedge	Cyperaceae	G4T2	S2		S	S	Beav, Silv	RE
<i>Carex paupercula</i> Poor Sedge	Cyperaceae	G5T5	S3		S		Flat, Lake, Linc, Miss, Rava, Teto	
<i>Carex petricosa</i> Rock Sedge	Cyperaceae	G4	S1				Glac	
<i>Carex prairea</i> Prairie Sedge	Cyperaceae	G5?	S1				Flat	
<i>Carex rostrata</i> Beaked Sedge	Cyperaceae	G5	S1				Flat	
<i>Carex scoparia</i> Pointed Broom Sedge	Cyperaceae	G5	S1				Miss, Rava	
<i>Carex stenoptila</i> Small-winged Sedge	Cyperaceae	G3?	S1				Flat, Rava, YNPK	
<i>Carex sychnocephala</i> Many-headed Sedge	Cyperaceae	G4	S1				Casc, Glac, Lake, Linc, Sher	
<i>Carex tenuiflora</i> Thin-flowered Sedge	Cyperaceae	G5	S1				Flat	
<i>Carex tincta</i> Slender Sedge	Cyperaceae	G4G5	SU				Glac, Lake, Park	
<i>Carex vaginata</i> Sheathed Sedge	Cyperaceae	G5	S1					RE
<i>Castilleja cervina</i> Deer Indian Paintbrush	Scrophulariaceae	G3G4	S1				Flat, Miss, Powe	
<i>Castilleja covilleana</i> Coville Indian Paintbrush	Scrophulariaceae	G3G4	S2	S			Rava	RE

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Castilleja exilis</i> Annual Indian Paintbrush	Scrophulariaceae	G5	S2				Deer, Gall, Jeff, Madi, Park	
<i>Castilleja gracillima</i> Slender Indian Paintbrush	Scrophulariaceae	G3G4	S2	S	W	Gall, Madi, Park, YNPK	RE	
<i>Ceanothus herbaceus</i> var <i>pubescens</i> New Jersey Tea	Rhamnaceae	G5T?	SH		W	Powd		
<i>Celastrus scandens</i> Bittersweet	Celastraceae	G5	S1		W	Daws		
<i>Centaurium exaltatum</i> Western Centaury	Gentianaceae	G5	SH			BigH		
<i>Centunculus minimus</i> Chaffweed	Primulaceae	G5	S1		W	Casc, Lake, Miss, Rava		
<i>Cercocarpus montanus</i> var <i>glauber</i> Birchleaf Mountain-mahogany	Rosaceae	G5TU	S1		W	Trea		
<i>Chenopodium subglabrum</i> Smooth Goosefoot	Chenopodiaceae	G3	S1		W	Cart, Casc, Cust		
<i>Chrysosplenium tetrandrum</i> Northern Golden-carpet	Saxifragaceae	G5	S3			Gran, Rava		
<i>Chrysothamnus parryi</i> ssp <i>montanus</i> Centennial Rabbitbrush	Asteraceae	G5T1	S1	S		Beav		
<i>Cirsium brevistylum</i> Short-styled Thistle	Asteraceae	G4	S1			Flat, Mine, Sand		
<i>Cirsium longistylum</i> Long-styled Thistle	Asteraceae	G2Q	S2			Broa, Case, Jeff, Judi, Lewi, Meag, Whea	SE	
<i>Clarkia rhomboidea</i> Common Clarkia	Onagraceae	G4	S2	S		Linc, Sand		
<i>Claytonia arenicola</i> Sand Springbeauty	Portulacaceae	G4	S1			Sand		
<i>Cleome lutea</i> Yellow Bee Plant	Capparaceae	G5	S1	W		BigH, Carb		

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<i>Collomia tinctoria</i> Yellow-staining Collomia	Polemoniaceae	G5	S1				Casc, Flat, Lake, Rava	
<i>Conioselinum scopulorum</i> Hemlock Parsley	Apiaceae	G4	S1			W	BigH, Carb	
<i>Corydalis sempervirens</i> Pale Corydalis	Fumariaceae	G4G5	S1				Flat, Glac, Linc	
<i>Cryptantha fendleri</i> Fendler Cat's-eye	Boraginaceae	G4	S1			W	Beav, Sher	
<i>Cryptantha flavoculata</i> Pale Yellow Cryptantha	Boraginaceae	G5	S1				Carb	
<i>Cryptantha humilis</i> Cryptantha	Boraginaceae	G4?	SU			W		
<i>Cryptantha scoparia</i> Miner's Candle	Boraginaceae	G4	S1			S	Carb	
<i>Cyperus acuminatus</i> Short-pointed Flatsedge	Cyperaceae	G5	S1			W	Casc, Cust, Sand	
<i>Cyperus erythrorhizos</i> Red-root Flatsedge	Cyperaceae	G5		SH			Flat, Miss	
<i>Cyperus rivularis</i> Shining Flatsedge	Cyperaceae	G5	S1				Miss, Rava	
<i>Cyperus schweinitzii</i> Schweinitz' Flatsedge	Cyperaceae	G5	S1			W	Cart, Casc, Cust, Sher	
<i>Cypripedium fasciculatum</i> Clustered Lady's-slipper	Orchidaceae	G4	S2			S	Lake, Mine, Sand	
<i>Cypripedium parviflorum</i> Small Yellow Lady's-slipper	Orchidaceae	G5	S2S3			S	Flat, Gall, Gran, Judi, Lake, Lewi, Linc, Miss, Park, Stil, Swee, Teto	
<i>Cypripedium passerinum</i> Sparrow's-egg Lady's-slipper	Orchidaceae	G4G5	S2			S	Flat, Lake, Lewi, Linc, Pond, Powe, Teto	
<i>Cystopteris montana</i> Mountain Bladder Fern	Dryopteridaceae	G5	SH				Glac	

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<i>Dalea emeandra</i> Nine-anther Dalea	Fabaceae	G5	S1			W	Cust, Rich	
<i>Dalea villosa</i> Silky Prairie Clover	Fabaceae	G5T?	S1			W	Cart	
<i>Dichanthelium oligosanthes</i> var <i>scribnierianum</i>	Poaceae	G5T5	S1			W	Lake, Powd	
Scribner's Panic Grass								
<i>Downingia laeta</i> Great Basin Downingia	Campanulaceae	G5	S1			W	Beav, Lewi, Madi, Teto	
<i>Draba densifolia</i> Dense-leaf Draba	Brassicaceae	G5	S2				Glac, Jeff, Lewi, Park, Silv	
<i>Draba fladnizensis</i> White Arctic Draba	Brassicaceae	G4	S1				Carb, Deer	
<i>Draba globosa</i> Round-fruited Draba	Brassicaceae	G3G4	S1			W	Beav, Madi	RE
<i>Draba macounii</i> Macoun's Draba	Brassicaceae	G3	S1				Flat, Glac	
<i>Draba porsildii</i> Porsild's Draba	Brassicaceae	G3	S1				Carb	
<i>Draba ventosa</i> Wind River Draba	Brassicaceae	G3	S1				Beav, Madi	RE
<i>Drosera anglica</i> English Sundew	Droseraceae	G5	S2				Flat, Gall, Lake, Lewi, Linc, Madi, Miss, Powe, Rava	
<i>Drosera linearis</i> Linear-leaved Sundew	Droseraceae	G4	S1				Flat, Lewi, Powe	
<i>Dryas integrifolia</i> Entire-leaved Avens	Rosaceae	G5	S1				Ferg, Gold, Madi	
<i>Dryopteris cristata</i> Buckler Fern	Dryopteridaceae	G5	S2			S	Flat, Lake, Miss, Rava	
<i>Elatine brachysperma</i> Short-seeded Water-wort	Elatinaceae	G5	SU				Gall, Miss	

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<i>Elatine californica</i> California Waterwort	Elatinaceae	G5	SU				Casc, Lake	
<i>Eleocharis rostellata</i> Beaked Spikerush	Cyperaceae	G5	S2			W	Carb, Flat, Lake, Madi, Sand, Teto	
<i>Elodea longivaginata</i> Long Sheath Waterweed	Hydrocharitaceae	G4G5	S1			W	Glac, Libe, Phil	
<i>Elymus flavescens</i> Sand Wildrye	Poaceae	G4	S1			S	Beav, Madi	
<i>Elymus innovatus</i> Northern Wild-rye	Poaceae	G5	S1			S	Casc, Glac, Pond	
<i>Epipactis gigantea</i> Giant Helleborine	Orchidaceae	G4	S2			W	Carb, Casc, Flat, Gran, Lake, Madi, Powe, Teto	
<i>Erigeron asperuginosus</i> Idaho Fleabane	Asteraceae	G5T5	S1			S	Beav, Madi, Rava	RE
<i>Erigeron eatonii</i> ssp <i>eatonii</i> Eaton's Daisy	Asteraceae					W	Flat, Swee	
<i>Erigeron evermannii</i> Evermann Fleabane	Asteraceae	G4	S1			S	Rava	RE
<i>Erigeron formosissimus</i> var <i>viscidus</i> Beautiful Fleabane	Asteraceae	G5T4	S1			W	Carb, Madi, Park	
<i>Erigeron lackschewitzii</i> Front Range Fleabane	Asteraceae	G5T3	S3			PS	Flat, Lewi, Pond, Teto	RE
<i>Erigeron leiomerus</i> Smooth Fleabane	Asteraceae	G4	S1				Beav, Madi	
<i>Erigeron linearis</i> Linearleaf Fleabane	Asteraceae	G5	S1			S	Beav, Rava	
<i>Eriogonum caespitosum</i> Mat Buckwheat	Polygonaceae	G5	S1				Beav	
<i>Eriogonum salsuginosum</i> Smooth Buckwheat	Polygonaceae	G4?	S1			S	Carb	

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<i>Eriogonum visherii</i> Visher's Buckwheat	Polygonaceae	G3	S1	S	S			Carb
<i>Eriophorum callitrix</i> Sheathed Cotton-grass	Cyperaceae	G5	S1					
<i>Eriophorum gracile</i> Slender Cottongrass	Cyperaceae	G5	SU	PS				Flat, Lake, Linc
<i>Eupatorium maculatum</i> Joe-pye Weed	Asteraceae	G5TU	S1			W		BigH, Carb
<i>Eupatorium occidentale</i> Western Boneset	Asteraceae	G4	S1	S				Mine, Rava
<i>Euphrasia arctica</i> var <i>disjuncta</i> Disjunct Eyebright	Scrophulariaceae	G5	S1					Glac
<i>Eustoma grandiflorum</i> Showy Prairie-gentian	Gentianaceae	G5	S1			W		McCo
<i>Festuca vivipara</i> Viviparous Fescue	Poaceae	G4G5Q	S2					Flat, Glac
<i>Genista glauca</i> Glaucous Gentian	Gentianaceae	G4G5	S1					Flat
<i>Genitanella prostrata</i> Pygmy Gentian	Gentianaceae	G5	S2					Beav, Carb, Deer, Glac, Stil
<i>Genitanella tenella</i> Slender Gentian	Gentianaceae	G4G5	S2					Carb, Madi, Park, Stil
<i>Gentianopsis macounii</i> Macoun's Gentian	Gentianaceae	G5	S1			PS		Glac, Teto
<i>Gentianopsis simplex</i> Hiker's Gentian	Gentianaceae	G4	S1			S		Beav, Carb, Miss
<i>Glossopetalon nevadense</i> Spiny Greenbush	Crossosomataceae	G5?Q	S1			S		Rava
<i>Goodiera repens</i> Northern Rattlesnake-plantain	Orchidaceae	G5	S3			S		Ferg, Flat, Judi, Meag, Whea

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<i>Gratiola ebracteata</i> Bractless Hedge-hyssop	Scrophulariaceae	G4	S1				Casc, Glac, Teto, Yell	
<i>Grayia spinosa</i> Spiny Hopsage	Chenopodiaceae	G5	<u>S2</u>			W	Beav, BigH, Carb	
<i>Grindelia howellii</i> Howell's Gum-weed	Asteraceae	G3	S2S3		S		Miss, Powe	RE
<i>Gymnosteris parvula</i> Small-flower Gymnosteris	Polemoniaceae	G4	SH			Gall		
<i>Halenia deflexa</i> Spurred Gentian	Gentianaceae	G5TU	S2		PS		Flat, Linc	SE
<i>Halimolobos perplexa</i> var <i>lempriensis</i> Puzzling Rockcress	Brassicaceae	G4T4	S1		S		Rava	
<i>Haplopappus aberrans</i> Idaho Golden-weed	Asteraceae	G3	S1		S		Rava	RE
<i>Haplopappus carthamoides</i> var <i>subsquarrosus</i> Beartooth Large-flowered Goldenweed	Asteraceae	G4G5T2T3	S2		W	Carb		RE
<i>Haplopappus macrocephala</i> var <i>macronema</i> Discoid Goldenweed	Asteraceae	G4G5T4	S1		S		Beav, Gall	
<i>Haplopappus paniculatus</i> Dwarf Goldenweed	Asteraceae	G5	S1			Beav		
<i>Haplopappus pygmaeus</i> Pygmy Goldenweed	Asteraceae	G4	SH			Deer, Gall		
<i>Helenium hoopesii</i> Orange Sneezeweed	Asteraceae	G5	SU			Beav		
<i>Hemicarpha drummondii</i> Drummond's Hemicarpha	Cyperaceae	G4G5	<u>SH</u>			Carb		
<i>Heteranthera dubia</i> Water Star-grass	Pontederiaceae	G5	S1			Flat, Sand		
<i>Heterodon rariiflorum</i> Western Pearl-flower	Campanulaceae	G5	S1			Lake, Rava, Sand		

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<i>Howellia aquatilis</i> Water Howellia	Campanulaceae	G2	S2	LT	T		Lake, Miss	
<i>Hutchinsia procumbens</i> Hutchinsia	Brassicaceae	G5	S1			W	Beav, Powe	
<i>Idahoa scapigera</i> Scallopod	Brassicaceae	G5	S1		S		Rava	
<i>Ipomopsis congesta</i> ssp <i>crebrifolia</i> Ballhead Gilia	Polemoniaceae	G5T3	S2			Beav		RE
<i>Ipomopsis minutiflora</i> Small-flower Standing-cypress	Polemoniaceae	G2G3	S1				Rava	
<i>Juncus acuminatus</i> Tapered Rush	Juncaceae	G5	S1				Teto	
<i>Juncus albenscens</i> Three-flowered Rush	Juncaceae	G5	S2				Flat, Glac, Park	
<i>Juncus covillei</i> var <i>covillei</i> Coville's Rush	Juncaceae	G4G5T5	SU				Mine, Miss, Rava	
<i>Juncus covillei</i> var <i>obtusatus</i> Coville's Rush	Juncaceae	G4G5T4	SU				Beav, Madi, Meag, Powe, Silv	
<i>Juncus hallii</i> Hall's Rush	Juncaceae	G4G5	S2		S			
<i>Juncus triglumis</i> Three-flowered Rush	Juncaceae	G5T5	S2				Carb, Stil	
<i>Kalmia occidentalis</i> Pale Laurel	Ericaceae	G5	S1				Flat, Miss	
<i>Kelloggia galloides</i> Kelloggia	Rubiaceae	G5	S1				Mine	
<i>Kobresia macrocarpa</i> Large-fruited Kobresia	Cyperaceae	G5	S1		S		Carb	
<i>Kobresia simpliciuscula</i> Simple Kobresia	Cyperaceae	G5	S2		W		Beav, Glac, Gran, Park, Teto	

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<i>Kochia americana</i> Red Sage	Chenopodiaceae	G5	SU				Beav	
<i>Koenigia islandica</i> Island Koenigia	Polygonaceae	G4	S1				Carb	
<i>Lagophylla ramosissima</i> Slender Hareleaf	Asteraceae	G5	S1				Lake, Sand	
<i>Lathyrus bijugatus</i> Latah Tule Pea	Fabaceae	G4	S1				Flat, Linc	RE
<i>Leptodactylon caespitosum</i> Leptodactylon	Polemoniaceae	G3G4	S1				Carb	
<i>Lesquerella carinata</i> var <i>languida</i> Garnet Bladderpod	Brassicaceae	G4T1	S1				Gran	SE
<i>Lesquerella humilis</i> Bitterroot Bladderpod	Brassicaceae	G1	S1				Rava	SE
<i>Lesquerella lesicii</i> Lesica's Bladderpod	Brassicaceae	G1	S1				Carb	SE
<i>Lesquerella paysonii</i> Payson Bladderpod	Brassicaceae	G3	S1				Beav, Gran	RE
<i>Lesquerella pulchella</i> Beautiful Bladderpod	Brassicaceae	G2	S2				Beav	SE
<i>Lewisia columbiana</i> var <i>wallowensis</i> Columbia Lewisia	Portulacaceae	G4T4	S1				Rava	
<i>Lewisia pygmaea</i> var <i>nevadensis</i> Nevada Bitterroot	Portulacaceae	G4	S1				Beav, Deer, Rava	
<i>Lilaea scilloides</i> Flowering Quillwort	Juncaginaceae	G4	S1				Lake	
<i>Linaria canadensis</i> Blue Toadflax	Scrophulariaceae	G4G5	S1				Cart, Daws, McCo	
<i>Liparis loeselii</i> Loesel's Twayblade	Orchidaceae	G5	S1				Lake	

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<i>Lobelia spicata</i> Pale-spiked Lobelia	Campnulaceae	G5	SH				Rich, Sher	
<i>Lomatium attenuatum</i> Taper-tip Desert-parsley	Apiaceae	G2	S2			S	Beav, Madi	RE
<i>Lomatium geyeri</i> Geyer's Biscuitroot	Apiaceae	G3G4	<u>S1</u>		S		Linc	
<i>Lomatium nudallii</i> Nuttall Desert-parsley	Apiaceae	G4	S1			W	BigH	
<i>Lomatogonium rotatum</i> Felwort	Gentianaceae	G5	S1			W	Beav, Rava	
<i>Lycopodium dendroideum</i> Treelike Clubmoss	Lycopodiaceae	G5	S1			W	Flat, Glac	
<i>Lycopodium inundatum</i> Northern Bog Clubmoss	Lycopodiaceae	G5	S1		S		Flat, Miss	
<i>Lycopodium lagopus</i> Running Pine	Lycopodiaceae	G5T?	S1					
<i>Lycopodium sticheri</i> Alaskan Clubmoss	Lycopodiaceae	<u>G5</u>	<u>S1</u>				Cart	
<i>Maianthemum canadense</i> Wild Lily-of-the-valley	Liliaceae	G5T4	S1					
<i>Malacothrix torreyi</i> Desert Dandelion	Asteraceae	G4	S1			S	Carb	
<i>Menzelia montana</i> White-bract Stickleleaf	Loasaceae	G4	SU					
<i>Menzelia muda</i> Bractless Menzelia	Loasaceae	G5	S1			W	Cust, Daws, Vall	
<i>Menzelia pumila</i> Dwarf Menzelia	Loasaceae	G4	S2		S	W	Carb	
<i>Mertensia bella</i> Oregon Bluebells	Boraginaceae	G4	S1		S		Miss	

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<i>Mimulus breviflorus</i> Short-flowered Monkeyflower	Scrophulariaceae	G4	S1				Flat	
<i>Mimulus nanus</i> Dwarf Purple Monkeyflower	Scrophulariaceae	G5	S1				Gall, Rava	
<i>Mimulus primuloides</i> Primrose Monkeyflower	Scrophulariaceae	G4	S2		S		Beav, Rava	
<i>Mirabilis hirsuta</i> Hairy Four-o'clock	Nyctaginaceae	G5	S1			W	Cart, Chou, Sher	
<i>Myosotis verna</i> Early Forget-me-not	Boraginaceae	G5	S1				Flat, Lake, Miss, Rava	
<i>Najas guadalupensis</i> Guadalupe Water-nymph	Najadaceae	G5	S1			W	Casc, Flat, Lake, Rava	
<i>Nama densum</i> Nama	Hydrophyllaceae	G5	S1			S	Carb	
<i>Nymphaea tetragona</i> Pygmy Water-lily	Nymphaeaceae	G5	S1				Flat, Lake, Miss	
<i>Oenothera pallida</i> var <i>idahoensis</i> Pale Evening-primerose	Onagraceae	G5T4Q	S1			S	Beav	RE
<i>Ophioglossum pusillum</i> Adder's Tongue	Ophioglossaceae	G5	S2				Flat, Lake, Linc, Miss	
<i>Orogenia fusiformis</i> Tapered-root Orogenia	Apiaceae	G5	S2			S	Beav, Madi, Miss, Rava	
<i>Oxytropis campestris</i> var <i>columbiana</i> Columbia Crazyweed	Fabaceae	G5T3Q	S1				Flat, Lake	RE
<i>Oxytropis deflexa</i> var <i>foliolosa</i> Pendent-pod Crazyweed	Fabaceae	G5T?	S1				Madi	
<i>Oxytropis parryi</i> Parry's Crazyweed	Fabaceae	G5	S1				Beav	
<i>Oxytropis podocarpa</i> Stalked-pod Crazyweed	Fabaceae	G4	S1			S	Glac, Teto	

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<i>Papaver kuanensis</i> Alpine Poppy	Papaveraceae	G3?Q	S1				Carb, Park, Swee	
<i>Penstemon angustifolius</i> Narrowleaf Penstemon	Scrophulariaceae	G5	S2			W	Cart, Daws, Miss	
<i>Penstemon attenuatus</i> var <i>militaris</i> Taper-leaved Beardtongue	Scrophulariaceae	G4T4	S1		W		Rava	RE
<i>Penstemon globosus</i> Globe Beardtongue	Scrophulariaceae	G4	S2				Gran	
<i>Penstemon grandiflorus</i> Large Flowered Beardtongue	Scrophulariaceae	G5?	S1			Cust		RE
<i>Penstemon lemhiensis</i> Lemhi Beardtongue	Scrophulariaceae	G3	S2			S	Beav, Deer, Rava, Silv	
<i>Penstemon payettensis</i> Payette Beardtongue	Scrophulariaceae	G4	S1				Rava	RE
<i>Penstemon whippleanus</i> Whipple's Beardtongue	Scrophulariaceae	G5	S1			S	Beav, Madi	
<i>Petasites frigidus</i> var <i>nivalis</i> Palmate-leaved Coltsfoot	Asteraceae	G5T?	S1		PS		Flat, Glac	
<i>Phacelia incana</i> Hoary Phacelia	Hydrophyllaceae	G3G4	S2			W	Beav	
<i>Phacelia scopulina</i> Dwarf Phacelia	Hydrophyllaceae	G4	SH				Madi, Silv	
<i>Phacelia thermalis</i> Hot Spring Phacelia	Hydrophyllaceae	G3G4	S1			W	Ferg, Garf, Phil	
<i>Phippia algida</i> Ice Grass	Poaceae	G5	S2				Carb, Stil	
<i>Phlox andicola</i> Plains Phlox	Polemoniaceae	G4	S1			W	Cart, Daws, Rose	
<i>Phlox kelseyi</i> var <i>missoulensis</i> Missoula Phlox	Polemoniaceae	G2	S2		S		Casc, Gran, Judi, Lewi, Meag, Miss, Powe	SE

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<i>Physaria brassicoides</i> Double Bladderpod	Brassicaceae	G5	S1				Cart	RE
<i>Physaria didymocarpa</i> var <i>lanata</i> Woolly Twinpod	Brassicaceae	G5T2	SU				BigH	RE
<i>Plagiobothrys leptocladus</i> Slender-branched Popcorn-flower	Boraginaceae	G4	S1				Cust, Glac, Phil	
<i>Poa curta</i> Short-leaved Bluegrass	Poaceae	G4	S1				W	Carb
<i>Poa laxa</i> ssp <i>baruffiana</i> Banff Loose-flowered Bluegrass	Poaceae	G5?T1	SU					
<i>Polygonum douglasii</i> ssp <i>austinae</i> Austin's Knotweed	Polygonaceae	G5T4	S2S3				Broa, Flat, Lewi, Madi, Pond, Teto	
<i>Polystichum kruckebergii</i> Kruckeberg's Sword-fern	Dryopteridaceae	G4	S1				Deer, Lake, Miss	
<i>Polystichum scopulinum</i> Mountain Holly-fern	Dryopteridaceae	G5	S1				Rava, Sand	
<i>Potamogeton obtusifolius</i> Blunt-leaved Pondweed	Potamogetonaceae	G5	S2				Flat, Glac, Lake, Miss	
<i>Potentilla brevifolia</i> Short-leaved Cinquefoil	Rosaceae	G4	S1				Madi	RE
<i>Potentilla hyperctica</i> Low Arctic Cinquefoil	Rosaceae	G4G5	S1				Carb	
<i>Potentilla plattensis</i> Platte Cinquefoil	Rosaceae	G4	S1				Beav, BigH, Carb	
<i>Potentilla quinquefolia</i> Five-leaf Cinquefoil	Rosaceae	G5T4	S2				Flat, Glac, Madi, Pond, Vall, YNPK	
<i>Potentilla uniflora</i> One-flowered Cinquefoil	Rosaceae	G5	S1				Carb, Glac, Gran	
<i>Primula alcalina</i> Idaho Primrose	Primulaceae	G1	SU				W	Beav

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<i>Primula incana</i> Mealy Primrose	Primulaceae	G4G5	S2			W	Beav, Madi	
<i>Prunus pumila</i> Sand Cherry	Rosaceae	G5	S1			Fall		
<i>Psilocarphus brevissimus</i> Dwarf Woolly-heads	Asteraceae	G5	S1			W	Casc, Phil, Sand	
<i>Psoralea hypogaea</i> Little Indian Breadroot	Fabaceae	G5T4?	S2			W	Casc, Chou, Ferg, Rose	
<i>Quercus macrocarpa</i> Bur Oak	Fagaceae	G5	S1			S	Cart	
<i>Ranunculus cardiophyllus</i> Heart-leaved Buttercup	Ranunculaceae	G4G5	S2			W	Glac, Swee, Tool	
<i>Ranunculus gelidus</i> Arctic Buttercup	Ranunculaceae	G4	S1			Stil		
<i>Ranunculus hyperboreus</i> Arctic Buttercup	Ranunculaceae	G5	S1				Deer, Gall	
<i>Ranunculus jovis</i> Jove's Buttercup	Ranunculaceae	G4	S2			S	Beav, Gall, Madi, Park	
<i>Ranunculus orthorhynchus</i> Straightbreak Buttercup	Ranunculaceae	G5T5	S1				Deer, Gran, Mine	
<i>Ranunculus pedatifidus</i> Northern Buttercup	Ranunculaceae	G5	S1			W	Flat, Glac, Gran, Libe, Tool	
<i>Ranunculus verecundus</i> Timberline Buttercup	Ranunculaceae	G5	S2				Deer, Flat, Glac, Madi	
<i>Ribes cognatum</i> Shinyleaf Gooseberry	Grossulariaceae	G4Q	S1				Linc, Mine, Sand	RE
<i>Ribes triste</i> Swamp Red Currant	Grossulariaceae	G5	S1				Deer, Gran, Mine, Rava	
<i>Rorippa calycina</i> Persistent-sepal Yellow-cress	Brassicaceae	G3	S1			W	Casc, Chou, Cust, McCo, Yell	RE

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<i>Rotala ramosior</i> Toothcup	Lythraceae	G5	S1				Lake, Miss, Rava	
<i>Sagina nivalis</i> Arctic Pearlwort	Caryophyllaceae	G5	S1				Glac, Stil	
<i>Salix barrattiana</i> Barratt's Willow	Salicaceae	G5	S1		S		Carb, Glac	
<i>Salix cascadiensis</i> Cascades Willow	Salicaceae	G4G5	S1				Deer	
<i>Salix serissima</i> Autumn Willow	Salicaceae	G4	S2		W	W	Glac, Meag, Teto	
<i>Salix wolffii</i> var <i>wolffii</i> Wolff's Willow	Salicaceae	G5?T4	S2		S		Deer, Gall, Madi, Park, Rava, Swee	
<i>Satureja douglasii</i> Yerba Buena	Lamiaceae	G4	S2				Miss, Rava, Sand	
<i>Saussurea densa</i> Dwarf Saw-wort	Asteraceae	G3G5	S2		S		Lewi, Pond, Teto	RE
<i>Saussurea weberi</i> Weber's Saw-wort	Asteraceae	G3Q	S1		S		Gran	
<i>Saxifraga apetala</i> Tiny Swamp Saxifrage	Saxifragaceae	G3Q	S2				Beav, Carb	RE
<i>Saxifraga hirculus</i> Yellow Marsh Saxifrage	Saxifragaceae	G5	S1				Carb	
<i>Saxifraga tempestiva</i> Storm Saxifrage	Saxifragaceae	G2	S2		S		Beav, Deer, Gran, Madi, Rava	SE
<i>Scheuchzeria palustris</i> Pod Grass	Scheuchzeriaceae	G5	S2		S		Flat, Lake, Linc, Miss	
<i>Scirpus cespitosus</i> Tufted Club-rush	Cyperaceae	G5	S2		PS		Beav, Flat, Powe, Teto	
<i>Scirpus heterochaetus</i> Slender Bulrush	Cyperaceae	G5	S1				Sher	

## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Scirpus hudsonianus</i> Hudson's Bay Bulrush	Cyperaceae	G5	S1				Flat, Glac	
<i>Scirpus pumilus</i> Small Clubrush	Cyperaceae	G3Q	S1				Glac, Teto	
<i>Scirpus subterminalis</i> Water Bulrush	Cyperaceae	G4G5	S2		S		Flat, Lewi, Linc, Miss	
<i>Selaginella selaginoides</i> Low Spike-moss	Selaginellaceae	G5	<u>S2</u>				Beav, Deer, Gran, Madi	
<i>Senecio amplectens</i> Clasping Groundsel	Asteraceae	G4T?	S1				Carb	
<i>Senecio eremophilus</i> Desert Groundsel	Asteraceae	G5T5	S1				Hill, Park	
<i>Senecio pauciflorus</i> Few-flowered Butterweed	Asteraceae	G4G5	<u>S1</u>				Flat	
<i>Shoshonea pulvinata</i> Shoshonea	Apiaceae	G2G3	S1		S	S	Carb	RE
<i>Sidalcea oregana</i> Oregon Checker-mallow	Malvaceae	G5	S1				Gall, Lake	
<i>Silene spaldingii</i> Spalding's Campion	Caryophyllaceae	G2	S1		W		Flat, Lake, Linc, Sand	RE
<i>Solidago ptarmicoides</i> Prairie Aster	Asteraceae	G5	S1				Cart, Rich	
<i>Solidago sparsiflora</i> Few-flowered Goldenrod	Asteraceae	G?	S1				Garf, Stil	
<i>Sphaeralcea munroana</i> White-stemmed Globe-mallow	Malvaceae	G4	S1				Beav	
<i>Sphaeromeria argentea</i> Chicken Sage	Asteraceae	G3	S2				S	Beav
<i>Sphenopholis intermedia</i> Slender Wedgegrass	Poaceae	G5	SH				W	Gall

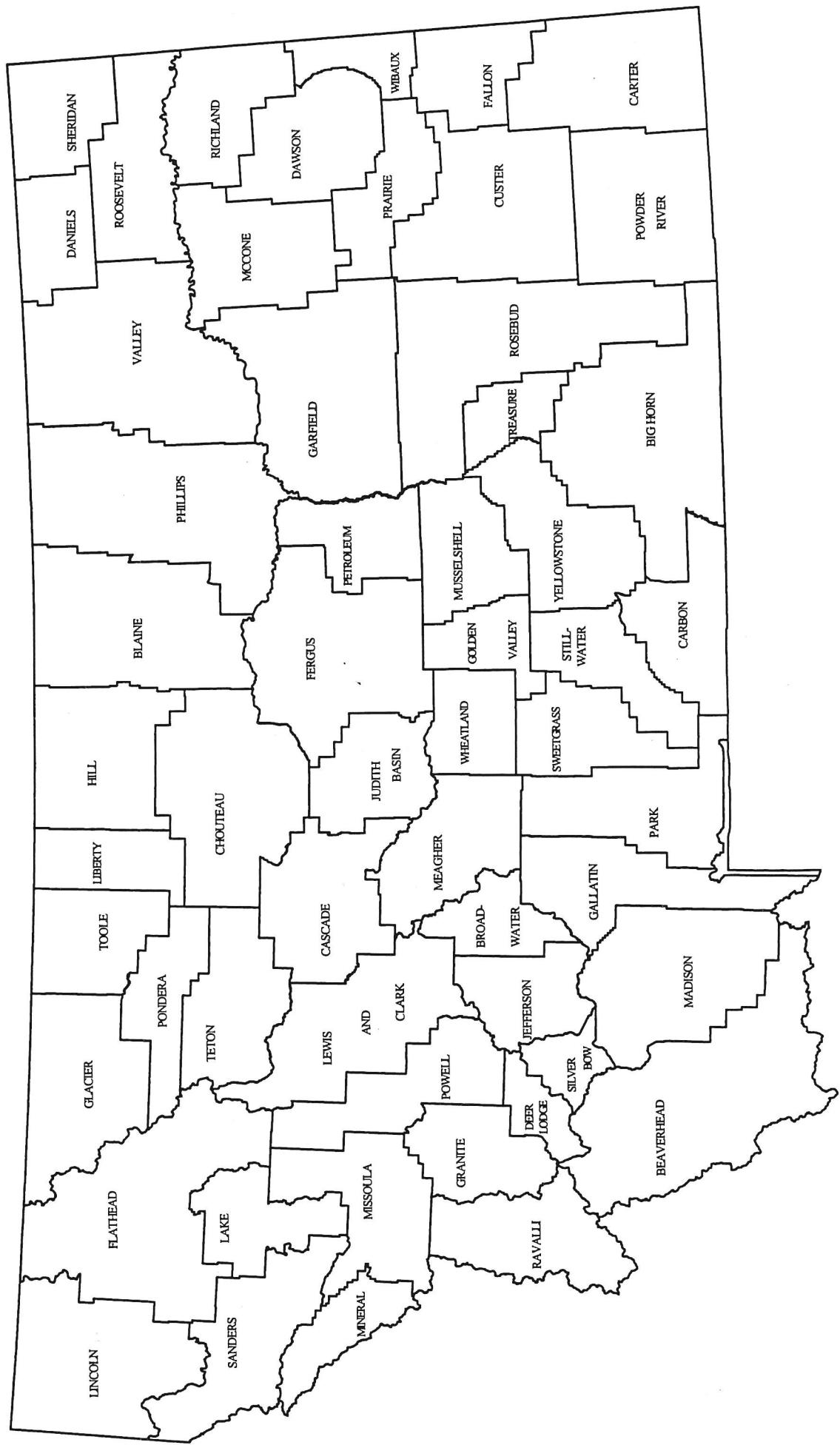
## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Spiranthes diluvialis</i> Ute Ladies' Tresses	Orchidaceae	G2	S1	LT		W	Jeff, Madi	
<i>Sporobolus asper</i> Longleaf Dropseed	Poaceae	G5	SU			W	Cart, Cust	
<i>Sporobolus neglectus</i> Small Dropseed	Poaceae	G5	SU			W	Gall, Sand, Whea	
<i>Stellaria crassifolia</i> Fleshy Stitchwort	Caryophyllaceae	G5	S1			W	Beav, Carb, Deer, Sand	
<i>Stellaria jamesiana</i> James Stitchwort	Caryophyllaceae	G5	S1			W	Beav	
<i>Stephanomeria spinosa</i> Spiny Skeletonweed	Asteraceae	G4	S1			W	Beav, Madi	
<i>Sipa lettermanii</i> Letterman's Needlegrass	Poaceae	G5	S1				BigH, Madi	
<i>Suckleya suckleyana</i> Poison Suckleya	Chenopodiaceae	G5	SU				Roos, Vall	
<i>Sullivantia hapemanii</i> Wyoming Sullivantia	Saxifragaceae	G3T3	S1				BigH, Carb	
<i>Taraxacum eriophorum</i> Rocky Mountain Dandelion	Asteraceae	G4	S1				Beav, Gran, Madi	
<i>Thalictrum alpinum</i> Alpine Meadowrue	Ranunculaceae	G5	S1				Beav, Gran	
<i>Thelypodium paniculatum</i> Northwestern Thelypody	Brassicaceae	G3G4	SH					RE
<i>Thelypodium sagittatum</i> Slender Thelypody	Brassicaceae	G4T?	S2				Beav, Flat, Gall, Lake	
<i>Thelypteris phegopteris</i> Northern Beechfern	Thelypteridaceae	G5	S2				Flat, Glac, Linc, Sand	
<i>Thlaspi parviflorum</i> Small-flowered Pennyress	Brassicaceae	G3	S2				Beav, Carb, Madi, Park, Silv	RE

## Vascular Plant Species of Special Concern, June 1997

Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
<i>Tofieldia pusilla</i> Tofieldia	Liliaceae	G5	S2				Glac	
<i>Townsendia condensata</i> Cushion Townsendia	Asteraceae	G4	S2			W	Beav, Glac, Madi, Park	RE
<i>Townsendia florifer</i> Showy Townsendia	Asteraceae	G5	S1			W	Beav, Madi	
<i>Townsendia leptotes</i> Slender Townsendia	Asteraceae	G4	SU					
<i>Trifolium cyathiferum</i> Cup Clover	Fabaceae	G4	S1				Miss, Rava	
<i>Trifolium eriocephalum</i> Woolly-head Clover	Fabaceae	G4T3	S1			S	Rava	
<i>Trifolium gymnocarpon</i> Hollyleaf Clover	Fabaceae	G4	S2			S	Gran, Rava	
<i>Utricularia intermedia</i> Flat-leaved Bladderwort	Lentibulariaceae	G5	S1				Flat, Miss, Powe	
<i>Vaccinium myrtilloides</i> Velvetleaf Blueberry	Ericaceae	G5	S1			W	Flat	
<i>Veratrum californicum</i> California False-hellebore	Liliaceae	G5	S1			S	Gran	
<i>Viburnum lentago</i> Nannyberry	Caprifoliaceae	G5	S1				BigH, Roos	
<i>Viguiera multiflora</i> Many-flowered Viguiera	Asteraceae	G4G5	SU				Beav, Gall, Madi	
<i>Viola renifolia</i> Kidney-leaf White Violet	Violaceae	G5	S3			S	W	Flat, Glac, Jeff, Lake, Linc, Miss, Silv, Teto
<i>Waldsteinia idahoensis</i> Idaho Barren Strawberry	Rosaceae	G3	S1			S	Miss	RE
<i>Wolffia columbiiana</i> Columbia Water-meal	Lemnaceae	G5	S2				W	Flat, Lake, Miss, Rava
<i>Zizia aurea</i> Golden Alexanders	Apiaceae	G5	SH				Jeff	

## Montana Counties



# Watch Vascular Plant List, June 1997

The Watch Vascular Plant List is made up of two sets of species:

**Limited distribution species** (42 total) are species of biogeographic interest. They include species which are state endemics, and other species which are in highly restricted areas or habitats of the state. A process for compiling and presenting information on their distribution is under development.

**Species of unresolved status** (120 total) are species to evaluate for addition to the Montana Plant Species of Special Concern list in the future. The overriding status question fits into one of six cases revolving around taxonomy (taxonomic validity, resolving disputes of specimen identification), natural distribution (whether there is a specimen voucher, whether or not it was brought into the state by humans), vulnerability as reflected in response to unnatural disturbance, and completion of base-level information compilation (acquisition records from major Montana herbaria, published sources and any needed consultation). We have also included a seventh case for recurrent hybrids. A summary statement of their status is available upon request.

Collection label information and commentary are invited on any Watch List species, and MTNHP will continue evaluating their status. The scientific name and global rank of watch species are presented below.

## Limited Distribution Species

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<i>Antennaria aromatica</i> (G4)	<i>Eriophorum viridicarinatum</i> (G5)
<i>Astragalus chamaeleuce</i> (G5)	<i>Gentiana aquatica</i> (G4)
<i>Astragalus lentiginosus</i> var <i>salinus</i> (G5T5)	<i>Gilia inconspicua</i> (G5)
<i>Astragalus leptaleus</i> (G4)	<i>Haplopappus multicaulis</i> (G4)
<i>Astragalus platytropis</i> (G5)	<i>Ipomopsis congesta</i> ssp <i>pseudotypica</i> (G5T?)
<i>Cardamine rupicola</i> (G3)	<i>Mimulus suksdorffii</i> (G4)
<i>Carex capitata</i> (G5)	<i>Oryzopsis contracta</i> (G3)
<i>Carex misandra</i> (G5)	<i>Oxytropis lagopus</i> var <i>conjugens</i> (G4T3)
<i>Carex torreyi</i> (G4)	<i>Papaver pygmaeum</i> (G3)
<i>Castilleja nivea</i> (G3)	<i>Pedicularis contorta</i> var <i>rubicunda</i> (G5T2)
<i>Castilleja pilosa</i> var <i>longispica</i> (G4?T4)	<i>Pedicularis oederi</i> (G5)
<i>Castilleja rustica</i> (G4G5T3T4)	<i>Pediocactus simpsonii</i> (G4)
<i>Chrysanthemum linifolius</i> (G5)	<i>Penstemon caryi</i> (G3)
<i>Delphinium bicolor</i> ssp <i>calcicola</i> (G4G5T3)	<i>Penstemon flavescens</i> (G3)
<i>Draba daviesiae</i> (G3)	<i>Physaria saximontana</i> var <i>dentata</i> (G3T2)
<i>Draba</i> sp 1 (G3G4)	<i>Senecio debilis</i> (G3G4)
<i>Erigeron allocotus</i> (G3)	<i>Sphaeromeria capitata</i> (G3)
<i>Erigeron coulteri</i> (G5)	<i>Synthyris canbyi</i> (G3)
<i>Erigeron flabellifolius</i> (G3G4)	<i>Synthyris missurica</i> (G4)
<i>Eriogonum capistratum</i> var <i>muhlickii</i> (G4T?)	<i>Townsendia nuttallii</i> (G3)
<i>Eriogonum lagopus</i> (G3)	<i>Townsendia spathulata</i> (G3)

## Species of Unresolved Status

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### Unresolved as native

<i>Achillea sibirica</i> (G5?)
<i>Calamagrostis koelerioides</i> (G5)
<i>Gnaphalium purpureum</i> var <i>purpureum</i> (G5TU)
<i>Oxalis stricta</i> (G5)
<i>Physalis pumila</i> (G5)
<i>Polygonum polycaloides</i> (G4G5)
<i>Scirpus pendulus</i> (G5)
<i>Sparganium androcladum</i> (G4G5)
<i>Sporobolus vaginiflorus</i> (G5)
<i>Stipa thurberiana</i> (G5)
<i>Thelesperma megapotamicum</i> (G5)
<i>Tillaea aquatica</i> (G5)
<i>Viburnum opulus</i> (G5)

### Unresolved as vulnerable

<i>Amaranthus californicus</i> (G4)
<i>Ambrosia acanthicarpa</i> (G5)
<i>Ambrosia tomentosa</i> (G4)
<i>Amsinckia lycopsoides</i> (G?)
<i>Bidens frondosa</i> (G5)
<i>Carex eburnea</i> (G5)
<i>Cuscuta pentagona</i> var <i>pentagona</i> (G5T5)
<i>Elatine americana</i> (G4)
<i>Erigeron flagellaris</i> (G5)
<i>Evax prolifera</i> (G5)
<i>Halimolobos virgata</i> (G4)
<i>Lemna minuta</i> (G4)
<i>Lemna valdiviana</i> (G5)
<i>Lilium columbianum</i> (G4G5)
<i>Madia minima</i> (G4)

# Watch Vascular Plant List, June 1997

## Species of Unresolved Status (continued)

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### Unresolved pending compilation of collection records

*Agastache foeniculum* (G4G5)  
*Aster foliaceus* var *lyallii* (G3?)  
*Astragalus kentrophyta* var *kentrophyta* (G5T4)  
*Astragalus miser* var *crispatus* (G5T3?)  
*Atriplex canescens* (G5)  
*Carex jonesii* (G5)  
*Carex lacustris* (G5)  
*Claytonia cordifolia* (G5)  
*Collomia debilis* var *camporum* (G5T3)  
*Conimitella williamsii* (G3)  
*Cryptogramma cascadensis* (G5)  
*Floerkea proserpinacoides* (G5)  
*Geum canadense* (G5)  
*Hierochloe odorata* (G5)  
*Huperzia haleakalae* (G4?)  
*Impatiens aurella* (G4?)  
*Impatiens ecalcarata* (G3G4)  
*Juncus tweedyi* (G3)  
*Juncus vaseyi* (G5?)  
*Lilium philadelphicum* (G5)  
*Penstemon montanus* var *idahoensis* (G5T?)  
*Rubus arcticus* (G5)  
*Saxifraga subapetala* (G3G4Q)  
*Selaginella densa* var *standleyi* (G5TU)

### Unresolved pending specimen review

*Antennaria neodoioica* ssp *neodoioica* (G4G5T?)  
*Antennaria pulcherrima* (G4G5)  
*Artemisia tilesii* ssp *unaliaschensis* (G5T3)  
*Calamagrostis scopulorum* (G5)  
*Carex brunnescens* (G5)  
*Carex ebenea* (G5)  
*Delphinium burkei* (G4)  
*Hymenopappus filifolius* var *idahoensis* (G5T4)  
*Hymenopappus filifolius* var *luteus* (G5T?)  
*Juncus interior* (G4G5)  
*Lomatium farinosum* (G4G5)  
*Oenothera elata* ssp *hirsutissima* (G5T?)  
*Tradescantia bracteata* (G5)  
*Viola palustris* (G5)  
*Viola septentrionalis* (G5)

### Unresolved report for Montana

*Acorus americanus* (G5)  
*Arabis sparsiflora* var *columbiana* (G5TU)  
*Arabis sparsiflora* var *subvillosa* (G5T?)  
*Artemisia longiloba* (G5T4)  
*Aster simplex* var *ramosissimus* (G5T?)  
*Camissonia tanacetifolia* (G5)  
*Carex aenea* (G5)

### Unresolved report for Montana (continued)

*Carex microglochin* (G5?)  
*Carex microptera* var *crassinervia* (G5?T3T4)  
*Carex pelocarpa* (G3?)  
*Carex straminiformis* (G4)  
*Castilleja crista-galli* (G3)  
*Cirsium pulcherrimum* (G5)  
*Cordylanthus capitatus* (G4)  
*Eleocharis flavesrens* (G5)  
*Eriophorum scheuchzeri* (G5)  
*Euthamia graminifolia* (G5)  
*Galium cymosum* (G?)  
*Geum rossii* var *rossii* (G5T5)  
*Heterotheca villosa* var *depressa* (G5T2)  
*Hierochloe alpina* (G5)  
*Isoetes lacustris* (G4G5)  
*Isoetes nuttallii* (G4?)  
*Ligusticum porteri* (G4G5)  
*Ligusticum verticillatum* (G4G5)  
*Mimulus glabratus* var *fremontii* (G5T?)  
*Muhlenbergia montana* (G5)  
*Navarretia divaricata* (G5)  
*Physalis hederifolia* var *comata* (G5?T4?)  
*Poa macroclada* (G3)  
*Potentilla concinna* var *macounii* (G2?)  
*Salix petiolaris* (G5)  
*Stipa lemmontii* var *lemmontii* (G5T?)  
*Vaccinium ovalifolium* (G5)  
*Verbena bipinnatifida* (G5)  
*Vernonia fasciculata* (G5T?)  
*Viola pedatifida* (G5)

### Unresolved taxonomy

*Carex luzulina* var *atropurpurea* (G5T3)  
*Cymopterus hendersonii* (G5)  
*Delphinium geyeri* (G5)  
*Draba lonchocarpa* var *exigua* (G4T3)  
*Eleocharis bella* (G5)  
*Eleocharis xyridiformis* (G4Q)  
*Eriogonum chrysoccephalum* (GUQ)  
*Eriogonum umbellatum* var *aureum* (G5TU)  
*Grindelia nana* var *integrifolia* (G5T4)  
*Mirabilis albida* (G5)  
*Senecio hyperborealis* (G5)  
*Stellaria simcoei* (G4Q)

### Hybrid

*Cypripedium x columbianum* (HYB)  
*Equisetum x ferrissii* (HYB)  
*Equisetum x trachyodon* (HYB)  
*Spiraea x pyramidata* (HYB)  
*Trisetum x orthochaetum* (HYB)

# Nonvascular Plants of Special Concern, June 1997

## Introduction

The following list of mosses is based on a state floristic compilation prepared for the U.S. Forest Service and subsequent evaluation (Elliot 1995). It includes species with highly specialized habitat requirements, species which have not been collected for over 70 years, and other species which have not been collected more than three times in the state, including the most recent additions to the state flora. Global ranking follows that for vascular plants (see pages 1 and 2), however, state rank definitions for mosses have been modified as follows:

State	Rank	Definition	Scientific Name	Family	Global Rank	State Rank
		Bryophytes				
	S1	Potentially critical imperiled because of both species and habitat rarity (3 or fewer collections and highly restricted to rare habitat).	<i>Aloina brevirostris</i>	Pottiaceae	G3G5	SH
	S2	Potentially imperiled because of both species and habitat rarity (20 or fewer collections and highly restricted to rare habitat).	<i>Amblyodon dealbans</i>	Meesiaceae	G3G5	SH
	SH	Historically known only from records before 1925; may be rediscovered.	<i>Bartramia stricta</i>	Bartramiaceae	G?	S1
	SU	Unknown (3 or fewer collections but collection label is incomplete or habitat restrictions and habitat rarity are poorly known to rank the species).	<i>Brachythecium reflexum</i>	Brachytheciaceae	G4G5	SH
		Work is underway to enter location records for mosses based on existing collections; however, county of distribution information is not available at this time. Major Montana bryophyte collections are available for reference at the University of Montana and the U.S. Forest Service's Intermountain Research Station Resource Center Herbarium in Missoula. Moss collectors are encouraged to use the Plant Species of Special Concern Survey Form when submitting information to MTNHP	<i>Brachythecium turgidum</i>	Brachytheciaceae	G3G5	S1
			<i>Bryum calobryooides</i>	Bryaceae	G3	SH
			<i>Bryum calophyllum</i>	Bryaceae	G?	SH
			<i>Bryum dichotomum</i>	Bryaceae	G5?	S1
			<i>Bryum lonchocaulon</i>	Bryaceae	G?	S1
			<i>Bryum pallens</i>	Bryaceae	G4G5	S1
			<i>Bryum schleicheri</i>	Bryaceae	G?	S1
			<i>Callicladium haldanianum</i>	Hypnaceae	G5	SH
			<i>Calliergon richardsonii</i>	Amblstegiaceae	G3	S1
			<i>Calliergon trifarium</i>	Amblstegiaceae	G5	S1
			<i>Calliergonella cuspidata</i>	Amblstegiaceae	G5	S1
			<i>Catoscopium nigritum</i>	Catopsciaceae	G4G5	S1
			<i>Cinclidium stygium</i>	Mniaceae	G5	S1
			<i>Crumia latifolia</i>	Pottiaceae	G4	S1
			<i>Cynodontium tenellum</i>	Dicranaceae	G?	SH
			<i>Dendroalsia abietina</i>	Cryphaeaceae	G4	SH
			<i>Desmatodon cernuus</i>	Pottiaceae	G3G5	SH
			<i>Desmatodon heimii</i>	Pottiaceae	G5	SH
			<i>Dichodontium olympicum</i>	Dicranaceae	G?	S1
			<i>Dicranella revilleana</i>	Dicranaceae	G?	S1
			<i>Dicranella heteromalla</i>	Dicranaceae	G?	S1
			<i>Dicranoweisia cirrata</i>	Dicranaceae	G4	S1
			<i>Dicranum acutifolium</i>	Dicranaceae	G?	S1
			<i>Dicranum fragilifolium</i>	Dicranaceae	G4G5	S1
			<i>Dicranum spadiceum</i>	Dicranaceae	G?	S1
			<i>Didymodon fallax var reflexus</i>	Pottiaceae	G5T5?	S1
			<i>Didymodon rigidulus var gracilis</i>	Pottiaceae	G5T?	S1
			<i>Didymodon vinealis var brachiphyllus</i>	Pottiaceae	G5T?	S1
			<i>Distichium inclinatum</i>	Ditrichaceae	G4G5	S1
			<i>Entosthodon rubiginosus</i>	Funariaceae	<u>GH</u>	<u>SH</u>
			<i>Eucladium verticillatum</i>	Pottiaceae	<u>G5</u>	<u>S1</u>
			<i>Eurhynchium pulchellum var barnesii</i>	Brachytheciaceae	G5T?	S1
			<i>Fabronia pusilla</i>	Fabroniaceae	G5?	S1
			<i>Fissidentaceae</i>	Fissidentaceae	G5	S1
			<i>Funaria americana</i>	Funariaceae	G2G3	SH

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# Nonvascular Plants of Special Concern, June 1997

Scientific Name	Family	Global Rank	State Rank	Global Rank	State Rank	Family	Scientific Name	Family	Global Rank	State Rank
<b>Bryophytes (continued)</b>										
<i>Grimmia brittoniae</i>	Grimmiaceae	G1	S1			Pottiacae	<i>Pseudocrossidium obtusulum</i>	Pottiacae	G2	
<i>Grimmia incurva</i>	Grimmiaceae	G4G5	S1			Pottiacae	<i>Pterygoneurum lamellatum</i>	Pottiacae	G?	
<i>Grimmia mollis</i>	Grimmiaceae	G3G5	S1			Ptychomitriaceae	<i>Pterygoneurum subsessile</i>	Ptychomitriaceae	G4?	
<i>Herzogiella striatella</i>	Hypnaceae	G4G5	S1			<i>Ptychomitrium gardneri</i>		G4		
<i>Herzogiella turfacea</i>	Hypnaceae	G4G5	S1			<i>Racomitrium aquaticum</i>		G?		
<i>Hygroamblystegium noterophilum</i>	Amblystegiaceae	G4	S1			<i>Racomitrium brevipes</i>		G?		
<i>Hypnum cochlearifolium</i>	Amblystegiaceae	G?	S1			<i>Racomitrium pygmaeum</i>		G4G5		
<i>Hypnum callichroum</i>	Hypnaceae	G?	S1			<i>Sarmenhypnum sarmentosum</i>		G4G5		
<i>Kiaeria blyttii</i>	Dicranaceae	G5	S1			<i>Schistostega pennata</i>		G4G5		
<i>Kiaeria falciata</i>	Dicranaceae	G5	S1			<i>Scorpidium scorpioides</i>		G4G5		
<i>Kiaeria stanskei</i>	Dicranaceae	G4	S1			<i>Seligeria dominiana</i>		G4G5		
<i>Leucolepis acanthoneuron</i>	Mniaceae	G4	S1			<i>Sphagnum centrale</i>		G5		
<i>Meesia longisetosa</i>	Meesiaceae	G3G4	S1			<i>Sphagnum compactum</i>		G5		
<i>Meesia triquetra</i>	Meesiaceae	G5	S1			<i>Sphagnum contortum</i>		G5		
<i>Meesia uliginosa</i>	Meesiaceae	G5	S1			<i>Sphagnum fallax</i>		G5		
<i>Mielichhoferia macrocarpa</i>	Bryaceae	G?	S1			<i>Sphagnum fimbriatum</i>		G5		
<i>Myurella tenerima</i>	Pterigynandraceae	G2G3	S1			<i>Sphagnum girgensohni</i>		G5		
<i>Neckera douglasii</i>	Neckeraceae	G4	S1			<i>Sphagnum magellanicum</i>		G5		
<i>Neckera pennata</i>	Neckeraceae	G5	S1			<i>Sphagnum mendocinum</i>		G4		
<i>Oligotrichum aligerum</i>	Polytrichaceae	G5	S1			<i>Sphagnum platyphyllum</i>		G5		
<i>Orthotrichum praemorsum</i>	Orthotrichaceae	G?	S1			<i>Sphagnum riparium</i>		G5		
<i>Oxystegus tenuirostris</i>	Pottiaceae	G5	SH			<i>Sphagnum subnitens</i>		S1		
<i>Paludella squarrosa</i>	Meesiaceae	G3G5	S1			<i>Sphagnum wulfianum</i>		G5		
<i>Paraleucobryum enerve</i>	Dicranaceae	G5?	S1			<i>Stegonia latifolia</i>		G?		
<i>Paraleucobryum longifolium</i>	Dicranaceae	G5	S1			<i>Tayloria acuminata</i>		G3G4		
<i>Phascum cuspidatum</i>	Pottiaceae	G5	S1			<i>Tayloria lingulata</i>		G3G5		
<i>Physcomitrium hookeri</i>	Funariaceae	G2G4	SH			<i>Tayloria serrata</i>		G5		
<i>Physcomitrium pyriforme</i>	Funariaceae	G5	SU			<i>Tetraplodon angustatus</i>		G3?		
<i>Plagiobryum demissum</i>	Bryaceae	G?	S1			<i>Thamnobryum neckeroides</i>		SH		
<i>Plagiobryum zieri</i>	Bryaceae	G3G4	S1			<i>Tortula bartramii</i>		G2G4		
<i>Platyhypnidium riparioides</i>	Brachytheciaceae	G5	S1			<i>Tortula muralis</i>		S1		
<i>Pohlia drummondii</i>	Bryaceae	G3G4	S1			<i>Tortula norvegica</i>		G5		
<i>Pohlia obtusifolia</i>	Bryaceae	G?	S1			<i>Tortula papillosa</i>		G5		
<i>Pohlia vexans</i>	Bryaceae	G?	SH			<i>Trachybryum megaptilum</i>		G4		
<i>Polytrichum hyallii</i>	Polytrichaceae	G4	S1			<i>Warrstorffia exannulata</i>		S1		
<i>Pseudocalliergon turgescens</i>	Amblystegiaceae	G3G5	S1			<b>Lichen</b>		Parmeliaceae		
<i>Bryoria subdivergens</i>	Parmeliaceae								G2	S1

## New Botany Reports and Publications

Listed below are botany reports and publications which were produced through the Montana Natural Heritage Program over the past year as of June, 1997. Complete lists of MTNHP botany literature are available, as are botanical reference search services by geographic area, by species, or by select keywords. In addition, a complete bibliography of Montana reports and reports of all heritage Programs in the West can be found on our home page (<http://nris.mt.gov/mtnhp>).

- Elliott, J. and T. Spribile. 1997. Preliminary list of mosses of the Kootenai National Forest. Unpublished report to the Kootenai National Forest. Montana Natural Heritage Program, Helena. 21 pp.
- Elliott, Joe C. 1997. Moss flora of Giant Springs State Park. Unpublished report to Montana Department of Fish, Wildlife, and Parks, Great Falls. Montana Natural Heritage Program, Helena. 5 pp.
- Heidel, B. L. 1996. Region 4 sensitive species inventories. Unpublished memo to the Montana Department of Fish, Wildlife and Parks, Great Falls. Montana Natural Heritage Program, Helena. 6 pp. + appendices
- Heidel, B. L. 1997. Woodhawk botanical survey, Fergus County, Montana. Unpublished report to the Bureau of Land Management. Montana Natural Heritage Program, Helena. 43 pp. + appendices
- Heidel, B. L. 1997. Interim report on the conservation status of *Spiranthes diluvialis* Sheviak in Montana. Unpublished report to U. S. Fish and Wildlife Service. Montana Natural Heritage Program, Helena. 33 pp. + appendices
- Heidel, B. L. 1997. Botanical survey of the Alkali Lake area, Blackfeet Indian Reservation. Unpublished draft report. Montana Natural Heritage Program, Helena.
- Heidel, B. L. and J. S. Shelly. 1997. The effects of fire on *Penstemon lemhiensis* - monitoring establishment report, 1995 and 1996. Unpublished report to the Beaverhead National Forest and the Bureau of Land Management. Montana Natural Heritage Program, Helena. 11 pp. + appendices
- Lesica, P. 1996. Effects of grazing on *Arabis fecunda*. Unpublished report to the Bureau of Land Management. Montana Natural Heritage Program, Helena. 5 pp. + appendices
- Shapley, M. and P. Lesica. 1997. *Howellia aquatilis* (Water Howellia) Pond of the Swan Valley: Conceptual hydrologic models and ecological implications. Unpublished report to U.S. Fish and Wildlife Service. Montana Natural Heritage Program and Conservation Biology Research. 44 pp.
- Vanderhorst, J. 1997. Conservation assessment of sensitive moonworts (*BOTRYCHIUM* subgenus *BOTRYCHIUM*) on the Kootenai National Forest. Montana Natural Heritage Program, Helena. 82 pp. + appendices
- Vanderhorst, J. 1997. Status review of *Clarkia rhomboidea* in Montana. Unpublished report to the Kootenai National Forest. Montana Natural Heritage Program, Helena. 19 pp. + appendices
- Vanderhorst, J., B. L. Heidel, J. Pierce, and S. V. Cooper. 1997. Botanical survey of the Ruby Range, Madison County, Montana. Unpublished report to Bureau of Land Management. Montana Natural Heritage Program, Helena. 47 pp. + appendices

# Vascular Plants of Special Concern -- Families

<b>Adoxaceae</b>	<b>Asteraceae (continued)</b>	<b>Caprifoliaceae</b>	<b>Cyperaceae (continued)</b>
<i>Adoxa moschatellina</i>	<i>Solidago sparsiflora</i>	<i>Viburnum lentago</i>	<i>Scirpus hudsonianus</i>
<b>Apiaceae</b>	<i>Sphaeromeria argentea</i>	<b>Caryophyllaceae</b>	<i>Scirpus pumilus</i>
<i>Conioselinum scopulorum</i>	<i>Stephanomeria spinosa</i>	<i>Sagina nivalis</i>	<i>Scirpus subterminalis</i>
<i>Lomatium attenuatum</i>	<i>Taraxacum eriophorum</i>	<i>Silene spaldingii</i>	
<i>Lomatium geyeri</i>	<i>Townsendia condensata</i>	<i>Stellaria crassifolia</i>	
<i>Lomatium nuttallii</i>	<i>Townsendia florifer</i>	<i>Stellaria jamesiana</i>	
<i>Orogenia fusiformis</i>	<i>Townsendia leptotes</i>		
<i>Shoshonea pulvinata</i>	<i>Viguiera multiflora</i>		
<i>Zizia aurea</i>		<b>Celastraceae</b>	
		<i>Celastrus scandens</i>	
<b>Asclepiadaceae</b>	<b>Boraginaceae</b>	<b>Chenopodiaceae</b>	<b>Dryopteridaceae</b>
<i>Asclepias incarnata</i>	<i>Cryptantha fendleri</i>	<i>Atriplex truncata</i>	<i>Cystopteris montana</i>
<i>Asclepias ovalifolia</i>	<i>Cryptantha flavoculata</i>	<i>Chenopodium subglabrum</i>	<i>Dryopteris cristata</i>
<i>Asclepias stenophylla</i>	<i>Cryptantha humilis</i>	<i>Grayia spinosa</i>	<i>Polystichum kruckebergii</i>
	<i>Cryptantha scoparia</i>	<i>Kochia americana</i>	<i>Polystichum scopulinum</i>
<b>Aspleniaceae</b>	<i>Mertensia bella</i>	<i>Suckleya suckleyana</i>	
<i>Asplenium trichomanes</i>	<i>Myosotis verna</i>		
	<i>Plagiobothrys leptocladus</i>		
<b>Asteraceae</b>	<b>Brassicaceae</b>	<b>Crossosomataceae</b>	<b>Elatinaceae</b>
<i>Agoseris lackschewitzii</i>	<i>Arabis demissa</i> var <i>languida</i>	<i>Glossopetalon nevadense</i>	<i>Elatine brachysperma</i>
<i>Antennaria densifolia</i>	<i>Arabis secunda</i>		<i>Elatine californica</i>
<i>Artemisia norvegica</i> var <i>saxatilis</i>	<i>Arabis lyrata</i> var <i>kamchatica</i>	<b>Cyperaceae</b>	
<i>Aster frondosus</i>	<i>Athysanus pusillus</i>	<i>Carex amplifolia</i>	
<i>Aster glaucodes</i>	<i>Braya humilis</i>	<i>Carex chalciolepis</i>	
<i>Balsamorhiza macrophylla</i>	<i>Cardamine oligosperma</i> var <i>kamtschatica</i>	<i>Carex chordorrhiza</i>	
<i>Bidens beckii</i>	<i>Draba densifolia</i>	<i>Carex comosa</i>	
<i>Bidens comosa</i>	<i>Draba fladnizensis</i>	<i>Carex cravei</i>	
<i>Chrysanthemum parryi</i> ssp <i>montanus</i>	<i>Draba globosa</i>	<i>Carex gravida</i>	
<i>Cirsium brevistylum</i>	<i>Draba macounii</i>	<i>Carex incurviformis</i> var <i>incurviformis</i>	
<i>Cirsium longistylum</i>	<i>Draba porsildii</i>	<i>Carex lenticularis</i> var <i>dolia</i>	
<i>Erigeron asperagineus</i>	<i>Draba ventosa</i>	<i>Carex livida</i>	
<i>Erigeron eatonii</i> ssp <i>eatonii</i>	<i>Halimolobos perplexa</i> var <i>lemhiensis</i>	<i>Carex multicostata</i>	
<i>Erigeron evermannii</i>	<i>Hutchinsia procumbens</i>	<i>Carex nelsonii</i>	
<i>Erigeron formosissimus</i> var <i>viscidus</i>	<i>Idahoa scapigera</i>	<i>Carex neurophora</i>	
<i>Erigeron lackschewitzii</i>	<i>Lesquerella carinata</i> var <i>languida</i>	<i>Carex norvegica</i> ssp <i>inserrulata</i>	
<i>Erigeron leiomerus</i>	<i>Lesquerella humilis</i>	<i>Carex norvegica</i> ssp <i>stevenii</i>	
<i>Erigeron linearis</i>	<i>Lesquerella lesicii</i>	<i>Carex occidentalis</i>	
<i>Eupatorium maculatum</i>	<i>Lesquerella paysonii</i>	<i>Carex parryana</i> ssp <i>idahoa</i>	
<i>Eupatorium occidentale</i>	<i>Lesquerella pulchella</i>	<i>Carex paupercula</i>	
<i>Grindelia howellii</i>	<i>Physaria brassicoides</i>	<i>Carex petricosa</i>	
<i>Haplopappus aberrans</i>	<i>Physaria didymocarpa</i> var <i>lanata</i>	<i>Carex prairea</i>	
<i>Haplopappus carthamoides</i> var <i>subsquarrosum</i>	<i>Rorippa calycina</i>	<i>Carex rostrata</i>	
<i>Haplopappus macronema</i> var <i>macronema</i>	<i>Thelypodium paniculatum</i>	<i>Carex scoparia</i>	
<i>Haplopappus nanus</i>	<i>Thelypodium sagittatum</i>	<i>Carex stenoptila</i>	
<i>Haplopappus pygmaeus</i>	<i>Thlaspi parviflorum</i>	<i>Carex sychnocephala</i>	
<i>Helenium hoopesii</i>		<i>Carex tenuiflora</i>	
<i>Lagophylla ramosissima</i>	<b>Cabombaceae</b>	<i>Carex tincta</i>	
<i>Malacothrix torreyi</i>	<i>Brasenia schreberi</i>	<i>Carex vaginata</i>	
<i>Petasites frigidus</i> var <i>nivalis</i>		<i>Cyperus acuminatus</i>	
<i>Psilocarphus brevissimus</i>	<b>Campanulaceae</b>	<i>Cyperus erythrorhizos</i>	
<i>Saussurea densa</i>	<i>Downingia laeta</i>	<i>Cyperus rivularis</i>	
<i>Saussurea weberi</i>	<i>Heterodon rariflorum</i>	<i>Cyperus schweinitzii</i>	
<i>Senecio amplectens</i>	<i>Howellia aquatilis</i>	<i>Eleocharis rostellata</i>	
<i>Senecio eremophilus</i>	<i>Lobelia spicata</i>	<i>Eriophorum callitrich</i>	
<i>Senecio pauciflorus</i>		<i>Eriophorum gracile</i>	
<i>Solidago ptarmicoides</i>	<b>Capparaceae</b>	<i>Hemicarpha drummondii</i>	
	<i>Cleome lutea</i>	<i>Kobresia macrocarpa</i>	
		<i>Kobresia simpliciuscula</i>	
		<i>Scirpus cespitosus</i>	
		<i>Scirpus heterochaetus</i>	

# Vascular Plants of Special Concern -- Families

<b>Gentianaceae (continued)</b>	<b>Monotropaceae</b>	<b>Polemoniaceae</b>	<b>Rubiaceae</b>
<i>Gentianopsis simplex</i>	<i>Allotropa virgata</i>	<i>Collomia tinctoria</i>	<i>Kelloggia galoides</i>
<i>Halenia deflexa</i>		<i>Gymnosteris parvula</i>	
<i>Lomatogonium rotatum</i>		<i>Ipomopsis congesta</i> ssp <i>crebrifolia</i>	
<b>Grossulariaceae</b>	<b>Najadaceae</b>	<i>Ipomopsis minutiflora</i>	<b>Salicaceae</b>
<i>Ribes cognatum</i>	<i>Najas guadalupensis</i>	<i>Leptodactylon caespitosum</i>	<i>Salix barrattiana</i>
<i>Ribes triste</i>	<b>Nyctaginaceae</b>	<i>Phlox andicola</i>	<i>Salix cascadensis</i>
	<i>Mirabilis hirsuta</i>	<i>Phlox kelseyi</i> var <i>missoulensis</i>	<i>Salix serissima</i>
<b>Hydrocharitaceae</b>	<b>Nymphaeaceae</b>	<b>Polygonaceae</b>	<i>Salix wolfii</i> var <i>wolfii</i>
<i>Elodea longivaginata</i>	<i>Nymphaea tetragona</i>	<i>Eriogonum caespitosum</i>	
<i>Nama densum</i>		<i>Eriogonum salsuginosum</i>	<b>Saxifragaceae</b>
<i>Phacelia incana</i>	<b>Onagraceae</b>	<i>Eriogonum visherii</i>	<i>Chrysosplenium tetrandrum</i>
<i>Phacelia scopolina</i>	<i>Boisduvalia densiflora</i>	<i>Koenigia islandica</i>	<i>Saxifraga apetala</i>
<i>Phacelia thermalis</i>	<i>Camissonia andina</i>	<i>Polygonum douglasii</i> ssp <i>austinae</i>	<i>Saxifraga hirculus</i>
<b>Juncaceae</b>	<i>Camissonia parvula</i>	<b>Pontederiaceae</b>	<i>Saxifraga tempestiva</i>
<i>Juncus acuminatus</i>	<i>Clarkia rhomboidea</i>	<i>Heteranthera dubia</i>	<i>Sullivantia hapemanii</i>
<i>Juncus albescens</i>	<i>Oenothera pallida</i> var <i>idahoensis</i>	<b>Portulacaceae</b>	<b>Scheuchzeriaceae</b>
<i>Juncus covillei</i> var <i>covillei</i>		<i>Claytonia arenicola</i>	<i>Scheuchzeria palustris</i>
<i>Juncus covillei</i> var <i>obtusatus</i>		<i>Lewisia columbiana</i> var <i>wallowensis</i>	
<i>Juncus hallii</i>		<i>Lewisia pygmaea</i> var <i>nevadensis</i>	<b>Scrophulariaceae</b>
<i>Juncus triglumis</i>		<b>Potamogetonaceae</b>	<i>Bacopa rotundifolia</i>
<b>Juncaginaceae</b>		<i>Potamogeton obtusifolius</i>	<i>Castilleja cervina</i>
<i>Lilaea scilloides</i>		<b>Primulaceae</b>	<i>Castilleja covilleana</i>
<b>Lamiaceae</b>		<i>Centunculus minimus</i>	<i>Castilleja exilis</i>
<i>Agastache cusickii</i>		<i>Primula alcalina</i>	<i>Castilleja gracillima</i>
<i>Satureja douglasii</i>		<i>Primula incana</i>	<i>Euphrasia arctica</i> var <i>disjuncta</i>
<i>Wolffia columbiana</i>			<i>Gratiola ebracteata</i>
<b>Lentibulariaceae</b>	<b>Orchidaceae</b>		<i>Linaria canadensis</i>
<i>Utricularia intermedia</i>	<i>Amerorchis rotundifolia</i>		<i>Mimulus breviflorus</i>
<b>Liliaceae</b>	<i>Cypripedium fasciculatum</i>		<i>Mimulus nanus</i>
<i>Allium acuminatum</i>	<i>Cypripedium parviflorum</i>		<i>Mimulus primuloides</i>
<i>Allium columbianum</i>	<i>Cypripedium passerinum</i>		<i>Penstemon angustifolius</i>
<i>Allium fibrillum</i>	<i>Epipactis gigantea</i>		<i>Penstemon attenuatus</i> var <i>militaris</i>
<i>Allium parvum</i>	<i>Goodyera repens</i>		<i>Penstemon globosus</i>
<i>Allium simillimum</i>	<i>Liparis loeselii</i>		<i>Penstemon grandiflorus</i>
<i>Calochortus bruneaunis</i>	<i>Spiranthes diluvialis</i>		<i>Penstemon lemhiensis</i>
<i>Maianthemum canadense</i>			<i>Penstemon payettensis</i>
<i>Tofieldia pusilla</i>			<i>Penstemon whippleanus</i>
<i>Veratrum californicum</i>			<b>Selaginellaceae</b>
	<b>Papaveraceae</b>		<i>Selaginella selaginoides</i>
	<i>Papaver kluanensis</i>		
<b>Loasaceae</b>	<b>Poaceae</b>	<b>Ranunculaceae</b>	<b>Thelypteridaceae</b>
<i>Mentzelia montana</i>	<i>Agrostis borealis</i>	<i>Aquilegia brevistyla</i>	<i>Thelypteris phegopteris</i>
<i>Mentzelia nuda</i>	<i>Calamagrostis tweedyi</i>	<i>Aquilegia formosa</i>	
<i>Mentzelia pumila</i>	<i>Dichanthelium oligosanthes</i> var <i>scribnierianum</i>	<i>Ranunculus cardiophyllus</i>	
<b>Lycopodiaceae</b>	<i>Elymus flavescens</i>	<i>Ranunculus gelidus</i>	
<i>Lycopodium dendroideum</i>	<i>Elymus innovatus</i>	<i>Ranunculus hyperboreus</i>	
<i>Lycopodium inundatum</i>	<i>Festuca vivipara</i>	<i>Ranunculus jovis</i>	
<i>Lycopodium lagopus</i>	<i>Phippsia algida</i>	<i>Ranunculus orthorhynchus</i>	
<i>Lycopodium sitchense</i>	<i>Poa curta</i>	<i>Ranunculus pedatifidus</i>	
<b>Lythraceae</b>	<i>Poa laxa</i> ssp <i>banffiana</i>	<i>Ranunculus verecundus</i>	
<i>Ammannia coccinea</i>	<i>Sphenopholis intermedia</i>	<i>Thalictrum alpinum</i>	
<i>Rotala ramosior</i>	<i>Sporobolus asper</i>		<b>Violaceae</b>
	<i>Sporobolus neglectus</i>	<b>Rhamnaceae</b>	<i>Viola renifolia</i>
	<i>Stipa lettermanii</i>	<i>Ceanothus herbaceus</i> var <i>pubescens</i>	
<b>Malvaceae</b>		<b>Rosaceae</b>	
<i>Sidalcea oregana</i>		<i>Cercocarpus montanus</i> var <i>glaber</i>	
<i>Sphaeralcea munroana</i>		<i>Dryas integrifolia</i>	
		<i>Potentilla brevifolia</i>	
		<i>Potentilla hyparctica</i>	
		<i>Potentilla plattensis</i>	
		<i>Potentilla quinquefolia</i>	
		<i>Potentilla uniflora</i>	
		<i>Prunus pumila</i>	
		<i>Waldsteinia idahoensis</i>	

**Forest Service**  
**Sensitive Plant List**

**Threatened**

*Howellia aquatilis*

**Sensitive**

*Adoxa moschatellina*  
*Agoseris lackschewitzii*  
*Allium acuminatum*  
*Allium fibrillum*  
*Allotropa virgata*  
*Amerorchis rotundifolia*  
*Antennaria densifolia*  
*Aquilegia brevistyla*  
*Arabis secunda*  
*Asplenium trichomanes*  
*Astragalus barrii*  
*Astragalus molybdenus*  
*Athyrsanus pusillus*  
*Balsamorhiza macrophylla*  
*Botrychium ascendens*  
*Botrychium crenulatum*  
*Botrychium hesperium*  
*Botrychium minganense*  
*Botrychium montanum*  
*Botrychium paradoxum*  
*Carex chordorrhiza*  
*Carex livida*  
*Carex parryana ssp idahoae*  
*Carex paupercula*  
*Castilleja covilleana*  
*Castilleja gracillima*  
*Chrysothamnus parryi ssp montanus*  
*Clarkia rhomboidea*  
*Cypripedium fasciculatum*  
*Cypripedium parviflorum*  
*Cypripedium passerinum*  
*Drosera linearis*  
*Dryopteris cristata*  
*Elymus innovatus*  
*Epipactis gigantea*  
*Erigeron asperagineus*  
*Erigeron evermannii*  
*Erigeron linearis*  
*Eupatorium occidentale*  
*Gentianopsis simplex*  
*Glossopetalon nevadense*  
*Goodyera repens*  
*Grindelia howellii*  
*Halimolobos perplexa var lemhensis*  
*Haplappus aberrans*  
*Haplappus macronema var macronema*  
*Idahoa scapigera*  
*Juncus hallii*  
*Kobresia macrocarpa*  
*Lesquerella humilis*

**Sensitive (continued)**

*Lesquerella paysonii*  
*Lesquerella pulchella*  
*Liparis loeselii*  
*Lomatium geyeri*  
*Lycopodium inundatum*  
*Mentzelia pumila*  
*Mertensia bella*  
*Mimulus primuloides*  
*Ophioglossum pusillum*  
*Orogenia fusiformis*  
*Oxytropis podocarpa*  
*Penstemon lemhiensis*  
*Phlox kelseyi var missoulensis*  
*Polygonum douglasii ssp austinae*  
*Potamogeton obtusifolius*  
*Ranunculus jovis*  
*Salix barrattiana*  
*Salix wolfii var wolfii*  
*Saussurea densa*  
*Saussurea weberi*  
*Saxifraga tempestiva*  
*Scheuchzeria palustris*  
*Scirpus subterminalis*  
*Shoshonea pulvinata*  
*Thalictrum alpinum*  
*Thelypteris phegopteris*  
*Thlaspi parviflorum*  
*Trifolium eriocephalum*  
*Trifolium gymnocarpon*  
*Veratrum californicum*  
*Viola renifolia*  
*Waldsteinia idahoensis*

**Watch**

*Carex lenticularis var dolia*  
*Erigeron eatonii ssp eatonii*  
*Kobresia simpliciuscula*  
*Mentzelia nuda*  
*Penstemon attenuatus var militaris*  
*Rorippa calycina*  
*Salix serissima*  
*Silene spaldingii*  
*Vaccinium myrtilloides*

**Proposed Sensitive**

*Agastache cusickii*  
*Astragalus scaphoides*  
*Botrychium spathulatum*  
*Erigeron lackschewitzii*  
*Eriophorum gracile*  
*Gentianopsis macounii*  
*Halenia deflexa*  
*Petasites frigidus var nivalis*  
*Scirpus cespitosus*

**Bureau of Land Management**

**Sensitive Plant List**

**Sensitive**

*Agastache cusickii*  
*Arabis secunda*  
*Astragalus ceramicus var apus*  
*Astragalus scaphoides*  
*Astragalus terminalis*  
*Camissonia andina*  
*Camissonia parvula*  
*Carex crawei*  
*Carex parryana ssp idahoae*  
*Cryptantha scoparia*  
*Elymus flavescens*  
*Eriogonum salsuginosum*  
*Lesquerella carinata var languida*  
*Lesquerella lesicci*  
*Lesquerella pulchella*  
*Lomatium attenuatum*  
*Malacothrix torreyi*  
*Nama densum*  
*Oenothera pallida var idahoensis*  
*Penstemon lemhiensis*  
*Penstemon whippleanus*  
*Quercus macrocarpa*  
*Shoshonea pulvinata*  
*Sphaeromeria argentea*  
*Taraxacum eriophorum*  
*Thalictrum alpinum*  
*Thelypodium paniculatum*

**Watch**

*Adoxa moschatellina*  
*Amerorchis rotundifolia*  
*Arabis demissa var languida*  
*Asclepias ovalifolia*  
*Asclepias stenophylla*  
*Asplenium trichomanes*  
*Astragalus aretioides*  
*Astragalus barrii*  
*Astragalus convallarius*  
*Astragalus oreganus*  
*Astragalus racemosus*  
*Atriplex truncata*  
*Bacopa rotundifolia*  
*Balsamorhiza macrophylla*  
*Bidens comosa*  
*Carex gravida*  
*Carex multicostata*  
*Carex occidentalis*  
*Castilleja gracillima*  
*Ceanothus herbaceus var pubescens*  
*Celastrus scandens*  
*Centunculus minimus*  
*Cercocarpus montanus var glaber*  
*Chenopodium subglabrum*  
*Cleome lutea*  
*Conioselinum scopulorum*  
*Cryptantha fendleri*  
*Cryptantha humilis*

**Watch (continued)**

*Cyperus acuminatus*  
*Cyperus schweinitzii*  
*Cypripedium parviflorum*  
*Dalea enneandra*  
*Dalea villosa*  
*Dichanthelium oligosanthes var scribnorianum*  
*Downingia laeta*  
*Draba globosa*  
*Eleocharis rostellata*  
*Elodea longivaginata*  
*Epipactis gigantea*  
*Erigeron asperagineus*  
*Erigeron formosissimus var viscidus*  
*Eupatorium maculatum*  
*Eustoma grandiflorum*  
*Gentianopsis simplex*  
*Grayia spinosa*  
*Haplappus carthamoides var subsquarrosum*  
*Hutchinsia procumbens*  
*Leptodactylon caespitosum*  
*Lesquerella klausii*  
*Linaria canadensis*  
*Lomatium nudallii*  
*Lomatogonium rotatum*  
*Lycopodium dendroideum*  
*Mentzelia nuda*  
*Mentzelia pulchella*  
*Mirabilis hirsuta*  
*Najas guadalupensis*  
*Penstemon angustifolius*  
*Phacelia incana*  
*Phacelia scopulina*  
*Phacelia thermalis*  
*Phlox andicola*  
*Plagiobothrys leptocladus*  
*Poa curta*  
*Potentilla plattensis*  
*Primula alcalina*  
*Primula incana*  
*Psilocarphus brevissimus*  
*Psoralea hypogaea*  
*Ranunculus cardiophyllum*  
*Ranunculus pedatifidus*  
*Rorippa calycina*  
*Salix serissima*  
*Solidago sparsiflora*  
*Sphenopholis intermedia*  
*Spiranthes diluvialis*  
*Sporobolus asper*  
*Sporobolus neglectus*  
*Stellaria crassifolia*  
*Stellaria jamesiana*  
*Stephanomeria spinosa*  
*Townsendia condensata*  
*Townsendia florifer*  
*Veratrum californicum*  
*Viola renifolia*  
*Wolfia columbiana*

# Plant Species of Special Concern Survey Form

1997 Revision

MONTANA NATURAL HERITAGE PROGRAM

1515 E. Sixth Avenue, Helena, MT 59620-1800

SCIENTIFIC NAME: \_\_\_\_\_ DATE OF SURVEY: \_\_\_\_/\_\_\_\_/\_\_\_\_

OBSERVER(S): \_\_\_\_\_

WORK LOCATION / ADDRESS: \_\_\_\_\_

Location: (attach a copy of pertinent 7.5' or 15' topographic map section with locations of populations/subpopulations outlined, one map for each sensitive species described.)

COUNTY: \_\_\_\_\_ USGS QUAD: \_\_\_\_\_

TOWNSHIP: \_\_\_\_\_ RANGE: \_\_\_\_\_ SEC.(s): \_\_\_\_\_ ¼ SEC.: \_\_\_\_\_

ADDITIONAL T/R/S, SECTIONS OR ¼ SEC.: \_\_\_\_\_

NATL. FOREST DISTRICT/BLM DISTRICT RA/OTHER: \_\_\_\_\_

DIRECTIONS TO SITE (Refer to towns, roads, trails, other geographic features): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Species Autecology

TOTAL NUMBER OF INDIVIDUALS (estimated or exact population count; sum clumps or stems if vegetative): \_\_\_\_\_  
\_\_\_\_\_

NUMBER OF SUBPOPULATIONS AND SUBTOTALS (if applicable): \_\_\_\_\_

SIZE OF AREA COVERED BY POPULATION (acres): \_\_\_\_\_

PHENOLOGY (% flowering, fruiting, vegetative): \_\_\_\_\_

EVIDENCE OF DISEASE, PREDATION, INJURY: \_\_\_\_\_

EVIDENCE OF SEED DISPERSAL, ESTABLISHMENT: \_\_\_\_\_

POPULATION TREND/OTHER COMMENTS: \_\_\_\_\_

Habitat: (Describe the distinguishing features of the environment on next page, adding landform and the nature of the species' habitat in the setting): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ELEVATION (mean or range): \_\_\_\_\_ ASPECT:  N  NE  E  SE  S  SW  W  NW

% SLOPE: \_\_\_\_\_ SLOPE SHAPE  Concave  Convex  Straight  Other \_\_\_\_\_

TOPOGRAPHY:  Crest  Upper  Mid  Lower  Bottom  Other \_\_\_\_\_

MOISTURE:  Dry  Moist  Saturated  Inundated  Seasonal seepage  Other \_\_\_\_\_

LIGHT EXPOSURE:  Open  Shaded  Partial shade  Other \_\_\_\_\_

PARENT MATERIAL: \_\_\_\_\_

SURFACE COVER (TOTAL %): MOSS/LICHEN \_\_\_\_\_ BASAL VEG. \_\_\_\_\_ BARE GROUND \_\_\_\_\_

SOIL TEXTURE/SERIES: \_\_\_\_\_

CANOPY COVER: TREE (%) \_\_\_\_\_ SHRUB (%) \_\_\_\_\_ FORB (%) \_\_\_\_\_ GRAMINOID (%) \_\_\_\_\_

PLANT COMMUNITY: (dominant species at present, age and structure notes):  
\_\_\_\_\_  
\_\_\_\_\_

CLIMAX VEGETATION (if not above): \_\_\_\_\_

ADDITIONAL ASSOCIATED PLANTS (include most common, conspicuous, and characteristic spp.):  
\_\_\_\_\_  
\_\_\_\_\_

EVIDENCE OF DISTURBANCE: \_\_\_\_\_

**Documentation:**

PHOTOGRAPH TAKEN? (if so, indicate photographer and depository): \_\_\_\_\_

SPECIMEN TAKEN? (if so, list collector, collection #, and repository): \_\_\_\_\_

IDENTIFICATION (name of person making determination, and/or flora used): \_\_\_\_\_

ECODATA PLOT NUMBER (attach photocopied data sheets): \_\_\_\_\_

OTHER DOCUMENTATION OR REFERENCES: \_\_\_\_\_

Comments:  
\_\_\_\_\_  
\_\_\_\_\_